

SMOKE SIGNALS

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 30th Year

Single Copy: \$1.25

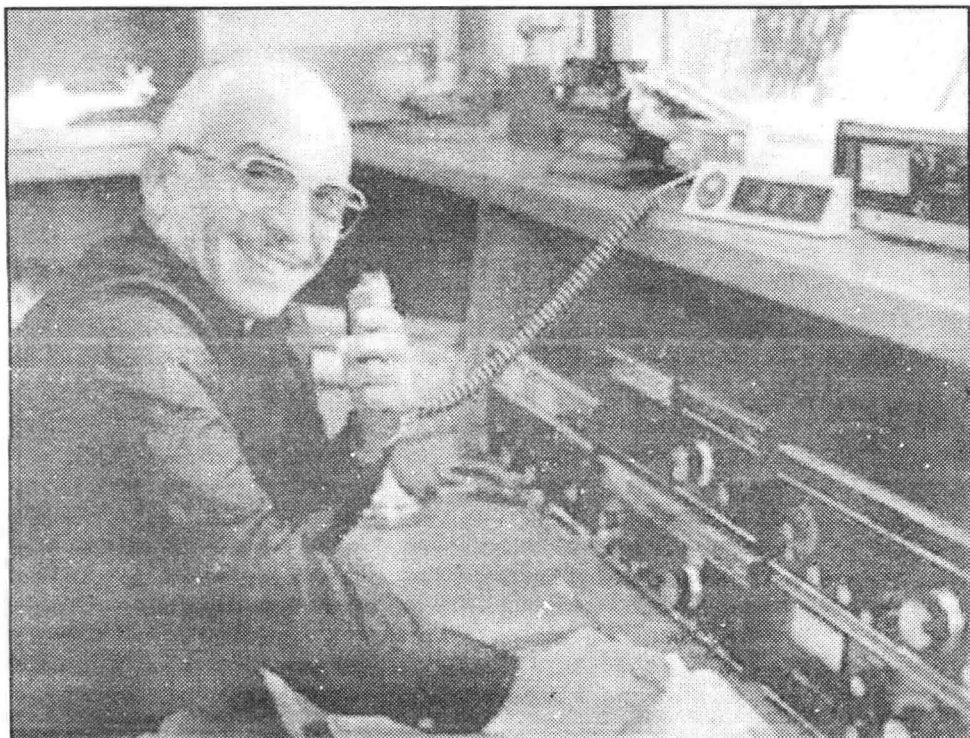
Return Address:
Kenneth A. Ebner
822 Wauona Trail
Portage, WI 53901

ADDRESS SERVICE
REQUESTED

Bulk Rate
U.S. Postage
PAID
Permit #265
Portage WI 53901

Vol. 29 No. 3 • 349th Consecutive Monthly Issue • Baraboo, Wisconsin • March 1999

King Hussein, JY1, SK



Radio amateurs around the world joined in mourning the recent death of Jordan's King Hussein, JY1. Hussein, 63, died February 7. The Middle East's longest-reigning ruler, he'd been Jordan's king for 47 years, taking the throne when he was just a teenager. His son, Abdullah, 37, succeeds him.

Hussein had earned a reputation as a catalyst for peace and as a conciliator in the Middle East. President Clinton was among the heads of state from around the globe who gathered in Jordan February 8 for Hussein's funeral.

Hussein had been active in recent months from the US while seeking cancer treatment at Minnesota's Mayo Clinic. A QSO with JY1 was considered by many hams to be both an honor and a privilege. His elegant QSL card was prized.

Hussein was a life member of the ARRL. ARRL Executive Vice President David Sumner, K1ZZ, called him "an enthusiastic radio amateur whose support was invaluable to us in obtaining new amateur bands at the 1979 World Administrative Radio Conference." Sumner recalled that in May 1979, International Amateur Radio Union President Noel Eaton, VE3CJ, was invited to Amman to meet with King Hussein.

"Jordan's support of the Amateur Service was much in evidence at the conference that fall, and was a crucial element in our success," Sumner said. The WARC-79 resulted in Amateur Radio's gaining the 30, 17, and 12-meter bands. That same year, JY1 was featured in the film, "The World of Amateur Radio." Hussein regarded his 1983 contact with Owen Garriott, W5LFL, on board the Space Shuttle Columbia, as a high point in his Amateur Radio activity.

King Hussein also participated in the historic 1995 joint Israel-Jordan JY74X

operation on Mt Nebo, where hams from both countries participated in a Field Day-like operation. The King put in appearances both on the air and in person, much to the delight of the participants and those waiting to work him and JY74X.

Hussein's friend Bruce "Blackie" Blackburn, W4TA/JY9BB, of St. Petersburg, Florida, called him "one of the world's most respected amateurs" and recounted many stories about King Hussein as a person and an avid Amateur Radio operator. Blackburn said King Hussein "promoted Amateur Radio to the hilt in Jordan" and saw to it that Amateur Radio classes were instituted in elementary schools. King Hussein also dropped in on meetings of the Royal Jordanian Radio Amateur Society in Amman. King Hussein also was involved with the early satellite experiments.

Former US Ambassador to Lebanon and Iran Armin Meyer, W3ACE, also recalled Hussein February 8 in a letter to The Washington Post. Meyer said JY1 "has for decades been promoting peace and good will among quite ordinary people." As Meyer put it: "For the king, ham radio was a different world, a community of diverse people."

All members of the Jordanian royal family automatically have Amateur Radio privileges in Jordan. Although the new king does not appear to have a call sign, King Hussein's widow--the American-born Queen Noor--is JY1NH. King Hussein's brother, the former Crown Prince Hassan, is JY2HT, while his cousin, Prince Raad, JY2RZ, is chairman of the Royal Jordanian Radio Amateur Society.

--Jennifer Gagne, N1TDY,
supplied information for this report
The ARRL Letter

International Space Station/Amateur Radio meeting held in Houston

A series of extremely successful International Space Station (ISS) Amateur Radio accommodation meetings were held at the NASA Johnson Space Center in Houston from January 22-27. These pivotal meetings were sponsored by NASA and by Energia, the Russian space company that is building portions of ISS.

The primary objectives of these meetings were to finalize the design development of the "Initial Station" Amateur Radio hardware for ISS and to develop a more effective understanding and advocacy of the Amateur Radio on the International Space Station (ARISS) program within NASA and Energia.

In addition to representatives from NASA and Energia, the ARISS "Initial Station" hardware development teams from the US, Russia, Germany and Italy were invited to participate in the meetings. The Initial Station design, solidified during the July 1998 ARISS meeting in Surrey, England, consists of 2 meter and 70 cm handheld transceivers, a packet radio system and power supplies, provided by the US team, a Digitalker, provided by the German team, antenna feedthroughs and power and space accommodations provided by the Russian team and the development of an antenna system which is led by the Italian delegation. NASA will be providing a Space Shuttle launch to transport the Initial Station hardware to the ISS and has financially supported the flight qualification of the Initial Station Hardware. Some of the testing required by NASA and Energia to flight qualify this hardware includes the development of a safety analysis package, hardware performance testing, ISS interface testing, electromagnetic interference testing, and toxic chemical offgassing testing. Both NASA and Energia are intimately involved in the external outfitting of the planned antennas systems through special astronaut spacewalks or EVAs.

The following ARISS team members from various IARU and AMSAT organizations were invited to attend and participate in these meetings:

- Sergej Samburov, RV3DR, Representing Energia, AMSAT-Russia and ARISS-Russia
- Ron Parise, W4SIR, Representing the ARISS-US Hardware Delegation
- Lou McFadin, W5DID, Representing the ARISS-US Hardware Delegation
- Frank Bauer, KA3HDO, Representing NASA, AMSAT-NA, and ARISS-US
- Matt Bordelon, KC5BTL, Representing NASA and ARISS-US
- Thomas Kieselbach, DL2MDE, Representing the ARISS-German Hardware Delegation
- Alberto Zagni, I2KBD, Representing the ARISS-Italian Hardware Delegation
- Fabrizio Bernardini, I0QIT, Representing the ARISS-Italian Hardware Delegation
- Luca Bertagnolio, IK2OVV, Representing the ARISS-Italian Hardware Delegation

During the meeting, Sergej Samburov, RV3DR, the President of AMSAT-Russia in Moscow and the Chief of the Cosmonaut Amateur Radio Department at Energia, confirmed that 4 dual-use antenna feedthroughs have been installed on the Russian Service Module. These dual-use feedthroughs are expected to support Amateur Radio operations and ISS proximity video capability during Russian and US spacewalks. He also confirmed his strong desire to work with the ARISS international partners to develop a single, coordinated Amateur Radio station on ISS.

Please turn to page 9

FLIPPING THE PAGES

What's Happening: Edited by Ken Ebner, K9EN	2
Here and There	4, 5
Wisconsin Amateur Radio Operator Recognition Day	5
Skywarn Classes Scheduled	5
Submarine Special Event Stations in April	5
The Computer Corner: Stan Kaplan, WB9RQR	6
Final Journey of the USCG Icebreaker "Glacier": Part 3: by Sherm Carr, W9NGT	6
The Automatic Position Reporting System (APRS), Part 1: by Tom Weeden, WJ9H	7
QRZ.COM: by Rich Regent, K9GDF	7
Ham Radio in Decline? Not if W9IXG can help it!	8
NOAA Weather Radio Station locations	9
New Products	9, 12
Racine Megacycle Club	10
Wisconsin Valley Radio Association	10
Wisconsin Nets Association	10
Sheboygan County Amateur Radio Club	10
Watts Snoo (Central Wisconsin Radio Amateurs at UW-Stevens Point)	11
ManCoRad Radio Club	11
Taylor County Area Amateur Radio Club	13
Quarter Century Wireless Association Southeastern Wisconsin Chapter 162	13
Red Cedar Repeater Association	13
The BSSS March Quiz: About the trivial and the not-so-trivial	13
The Wisconsin Packeteer	14
Yellow Thunder Amateur Radio Club	15

1999 WISCONSIN QSO PARTY • SUNDAY, MARCH 14, 1999
12 NOON TO 7 P.M. • FULL RULES, ENTRY FORM, MULTIPLIER LIST,
SPONSOR INFORMATION IN FEBRUARY BSSS, OR AT
<http://www.execpc.com/WARAC>
Sponsored by the West Allis Radio Amateur Club



WHAT'S HAPPENING

✕ Swapfests and Other Social Events ✕ Club Meetings
✕ Amateur Radio Exam Schedules

Edited by Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901 • kebnetter@palacenet.net

Swapfests and Other Social Events

SUNDAY, MARCH 7, 1999. SEWFARS Swapfest, Waukesha, WI. Contact: SEWFARS Inc., PO Box 102, Delafield, WI 53018. (414) 835-7035

SUNDAY, MARCH 21, 1999. Tri County Hamfest 1999 at Jefferson County Fairgrounds, Jefferson WI. Contact TCARC, 711 East St., Fort Atkinson, WI 53538. (920) 563-6502, e-mail tricountyarc@globaldialog.com

SUNDAY, MARCH 28, 1999. LAMARSfest sponsored by the North Shore Radio Club will be held at the Lake County Fairgrounds, Grayslake, IL. Doors open at 8:00 a.m., Vendor setup at 6:00 a.m. Contact North Shore Radio Club, NR9SC, Box 1066, Highland Park, IL 60035. www.NR9SC.org

FRIDAY-SATURDAY, APRIL 9-10, 1999. AES Superfest 99. Held at Amateur Electronic Supply, 5710 W. Good Hope Road, Milwaukee, WI 53223. Manufacturers representatives will be there to meet with you and talk about their equipment. See ad elsewhere BSSS for further information.

SUNDAY, APRIL 11, 1999. MARA Swapfest, Madison, WI. Middleton Conference Center. (Same place as last year) Contact: MARA, PO Box 8890, Madison, WI 53708-8890. (Watch for full ad in upcoming issues of BSSS.)

SATURDAY, MAY 1, 1999. The Ozaukee Radio Club will sponsor its twenty first Annual Cedarburg Swapfest at the Circle-B Recreation Center, Cedarburg, WI. Contact Joe Holly, ORC Swapfest Chairman, 1702 Holly Lane, Grafton, WI 53024. (414) 377-2137 or Skip Douglas at (414) 284-3271.

SATURDAY, MAY 8, 1999. The Lakeshore Hamfest at Manitowoc County Expo, Manitowoc, WI.

Contact: Red, N9GHE (920) 684-3733 or Fred, (920) 682-9312. ManCoRad Radio Club, PO Box 204, Manitowoc, WI 54221-0204.

SUNDAY, JUNE 6, 1999. The Central Wisconsin Radio Amateurs, 22nd annual Swapfest and Auction at Junction City, WI. (Stevens Point area.) Contact: John Feltz, W9JN, 973 E. First St., Junction City, WI 54443-9614. (715) 457-2506. e-mail: jfw9jn@tznnet.com

SATURDAY, JULY 10, 1999. South Milwaukee Amateur Radio Club Swapfest, American Legion Park, Shepard Avenue, South Milwaukee, WI. Contact South Milwaukee ARC, P.O. Box 102, South Milwaukee, WI 53172. (414) 762-3235.

SUNDAY, JULY 25, 1999. Racine, WI. The Racine Megacycle Club, Amateur Radio & Computer Show. Contact: e-mail: w9udu@wi.net voice mail: (414) 552-6RMC web page: http://www2.wi.net/~hamradio/

SATURDAY, AUGUST 14, 1999. Circus City Swapfest, Baraboo, WI. Contact: Steve Schulze, N9UDO, (608) 356-2313/356-4777 or Bill Klinkner, N9KXX, (608) 643-6908/643-6453. e-mail: http://www.thelorax.com/~ssschulze/hamfest.htm

See also the back page and flyer ads for additional information on many of these events.

Let us know of your dates as soon as you know them. We will list them and perhaps help avoid conflicts with other events. As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

the 9th of that month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections, and exchange papers should be sent to Ken Ebnetter.

Editorial material, photographs, and feature articles should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebnetter.

Club, swapfest, and Test Point information should be sent to Ken Ebnetter.

Swapfest ADS should be sent to Jim Romelfanger NO LATER THAN EIGHT WEEKS BEFORE THE EVENT'S DATE.

Subscriptions should be sent, with check or money order, to Ken Ebnetter.

Conditions for Reprinting or BBS Posting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles or posting articles on radio or telephone bulletin boards from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. THIS CREDIT IS MANDATORY, AND NO MATERIAL MAY BE PRINTED OR POSTED UNLESS IT IS GIVEN.

This newspaper is produced by volunteer radio amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901.

Badger State Smoke Signals is incorporated as a Wisconsin non-stock, non-for-profit organization.

Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

CLUB MEETINGS

Due to space limitations, we cannot always carry the full listing of Wisconsin and area club meetings. Please see the September 1998 meetings column for the latest complete listing. The following changes have been reported to BSSS since that listing.

EAU CLAIRE AMATEUR RADIO CLUB

2nd Tuesday - 7:30 PM Eau Claire, Parks & Recreation, 1300 First Ave, Eau Claire, WI 54703. All hams and guests welcome. Wide area coverage repeater KB9RRA 146.910 Mhz. For more info: Jim Staatz KG9MV 715-838-9108 kg9mv@ecol.net

WAUPACA AMATEUR RADIO CLUB

"CQ First Tue." - A social gathering and Dutch treat luncheon at the King's Table in King, WI, on Highway QQ just south of highways 10 and 54 on the west side of Waupaca. Gather at 11:00 - 11:30. Order at noon. Club business transacted.

"CQ Third Fri." A social gathering and Dutch treat dinner, semi-formal, "OM & XYL" at one of the better supper clubs in the area. Check Waupaca 147.390 nets at 8:00 a.m. or 8:50 p.m. for that month's meeting place.

QCWA - WISCONSIN CHAPTER #55

Contact Erwin Froelich, W9RZW, Treasurer, W3449 Badger Road, Pine River WI 54965. For information about meeting dates or joining QCWA Chapter #55. The Wisconsin Chapter holds Spring and Fall dinner meetings on the first Saturday of June and October.

RADIO AMATEURS OF WISCONSIN (R.A.W.) OSHKOSH, WI

R.A.W. is a family oriented club, in which most of its activities revolve around family doings and outings. Meetings are on the 3rd Saturday of each month at various locations. If you are a Ham or are interested in Ham radio, contact Mark Miller, N9WT, (920) 231-1662 or Jeff Oppermann N9OSB, (920) 233-7961. We are always looking for good people to join us.

Badger State Smoke Signals

*Amateur Radio
Education and Information*

CHAIRMAN: Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (808) 742-3560. kebnetter@palacenet.net

EDITOR: Jim Romelfanger, K9ZZ, 412½ Ash Street, Baraboo, WI 53913. Telephone (808) 356-4031. smokesigs@baraboo.com

TREASURER: Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage WI 53901.

EDITORIAL BOARD: Ken Ebnetter, K9EN; Dave Knaus, WA9POV; Don Evenson, K9JYX; Jim Romelfanger, K9ZZ.

Subscriptions

1 year	(12 issues)	\$13.95
2 years	(24 issues - save \$1.95)	\$25.95
3 years	(36 issues - save \$3.90)	\$37.95

Subscription form is on page 5. Special club package reduced rates are available. For information, contact Ken Ebnetter, K9EN.

When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1. The only exception is for participating clubs' minutes. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For example, if a club meets on the 4th of the month, the material should be sent no later than

The Test Point



*Amateur Radio Examination Locations
and Schedules in the Wisconsin Area*

March 06, 1999	Oshkosh (Omro), WI
March 06, 1999	Racine, WI
March 06, 1999	St. Paul, MN
March 11, 1999	Apple Valley, MN
March 13, 1999	Blaine, MN
March 13, 1999	Madison, WI
March 13, 1999	Oak Creek, WI (MRAC)
March 16, 1999	Eden Prairie, MN
March 16, 1999	Sheboygan, WI
March 16, 1999	Milwaukee, WI (BE)
March 20, 1999	Cottage Grove, MN
March 20, 1999	Loves Park, IL
March 20, 1999	Milwaukee, WI (BE)
March 27, 1999	Bloomington, MN
March 27, 1999	Menomonie, WI
March 27, 1999	Milwaukee, WI (MRAC)
March 27, 1999	Tomahawk, WI
March 28, 1999	Grayslake, IL
	LAMARSfest
April 03, 1999	Oshkosh (Omro), WI
April 03, 1999	Racine, WI
April 03, 1999	St. Paul, MN
April 10, 1999	Blaine, MN
April 10, 1999	Eau Claire, WI
April 10, 1999	Madison, WI
April 10, 1999	Oak Creek, WI (MRAC)

April 15, 1999 Apple Valley, MN
 April 15, 1999 Milwaukee, WI (BE)
 April 17, 1999 Cottage Grove, MN
 April 17, 1999 Loves Park, IL
 April 17, 1999 Milwaukee, WI (BE)
 April 20, 1999 Eden Prairie, MN
 April 24, 1999 Bloomington, MN
 April 24, 1999 Milwaukee, WI (MRAC)
 April 24, 1999 Tomahawk, WI
 May 01, 1999 Oshkosh (Omro), WI
 May 01, 1999 Racine, WI
 May 01, 1999 St. Paul, MN
 May 08, 1999 Blaine, MN
 May 08, 1999 Madison, WI
 May 08, 1999 Oak Creek, WI (MRAC)
 May 08, 1999 Onalaska, WI
 May 13, 1999 Apple Valley, MN
 May 15, 1999 Cottage Grove, MN
 May 15, 1999 Loves Park, IL
 May 15, 1999 Milwaukee, WI (BE)
 May 15, 1999 Sheboygan, WI
 May 18, 1999 Eden Prairie, MN
 May 22, 1999 Bloomington, MN
 May 22, 1999 Oshkosh, WI (R.A.W.)
 May 29, 1999 Milwaukee, WI (MRAC)
 May 29, 1999 Tomahawk, WI
 July 20, 1999 Sheboygan, WI
 August 21, 1999 Oshkosh, WI (R.A.W.)
 September 11, 1999 Sheboygan, WI
 September 11, 1999 Onalaska, WI
 October 16, 1999 Oshkosh, WI (R.A.W.)
 November 06, 1999 Menomonie, WI
 November 06, 1999 Onalaska, WI
 November 16, 1999 Sheboygan, WI
 December 18, 1999 Oshkosh, WI (R.A.W.)
 Monthly, 1st Sat. Racine, WI
 (except January, July & August)
 Monthly, 1st Sat. Oshkosh (Omro), WI
 Monthly, 1st Sat. St. Paul, MN
 Monthly, 2nd Thu. Apple Valley, MN
 Monthly, 2nd Sat. Oak Creek, WI (MRAC)
 Monthly, 2nd Sat. Madison, WI
 Monthly, 2nd Sat. Blaine, MN
 Monthly, 3rd Tue. Eden Prairie, MN
 Monthly, 3rd Sat. Milwaukee, WI (BE)
 Monthly, 3rd Sat. Loves Park, IL
 Monthly, 3rd Sat. Cottage Grove, MN
 Monthly, 4th Sat. Bloomington, MN
 Monthly, Last Sat. Milwaukee, WI (MRAC)
 (except December)
 Monthly, Last Sat. Tomahawk, WI
 (January thru October only)
 Quarterly Eau Claire, WI
 (Second Saturday Jan., Apr., & Oct.)
 plus annual summer hamfest.)

Many Swapfests/Hamfests offer exam sessions. If not shown above contact the sponsoring club in the Swapfest column on page 2.

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

GENERAL RULES FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Some examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL. Send a 32c/ SASE if you request one from the ARRL. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$6.45 payable to "ARRL/VEC".

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE or CSCE to the VEC. You must also have two good copies of your license or CSCE. A copy of your license or CSCE must be attached to your FCC form 610 and most VEC want a copy for their records. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

For those with internet access, a listing of exam sessions is available from:

<http://www.arrl.org/arrlvec/examsearch.phtml>

By checking this page, a person can find out registered VE sessions anywhere in US and some overseas. You can search by country, state or zip code. The listing is not specific to any particular VEC, it is a master database. (Thanks to KB9EQI for information.)

MILWAUKEE RADIO AMATEURS' CLUB
(MRAC/VEC)

SECOND SATURDAY - OAK CREEK, WI LAST SATURDAY - MILWAUKEE, WI

SECOND SATURDAY DATE: 1:00 p.m. to 3:00 p.m. at Wauwatosa Savings Bank, 6560 S. 27th St., Oak Creek, WI.

LAST SATURDAY DATES: (except December): 9:00 a.m. to 12:00 noon at Amateur Electronic Supply (AES), 5710 W. Good Hope Rd., Milwaukee, WI. Note: For Additional Information: Call (414) 466-HAMS (Answering Machine).

Bring along your ORIGINAL license, CSCE (if any) and one (1) good quality photocopy of each, plus two forms of identification, such a driver's license, etc. Also required is \$6.35 for the exam fee. WALK-INS are welcome. To register in advance, use a post card: Print the grade of license you are applying for, your name, address, and telephone number. Send the card to MRAC/VEC, Milwaukee Radio Amateurs Club, PO Box 25707, Milwaukee, WI 53225.

BADGER EXAMINERS (BE) - MILWAUKEE

Badger Examiners group tests at AES (Amateur Electronic Supply) at 60th and Good Hope, every third Saturday MORNING. Exam times are 9:30 a.m. to 12:00 noon, at the old Serman Printing shop, just 300 feet west of the AES store. Novice to Extra are offered, and all test materials are provided. Fee is \$6.35, and bring your original license, or CSCE if needed. Also available are Commercial license exams GROL (General Radiotelephone license), GMDSS, Telegraph, Etc. Fee is \$35.00. For more information call Gary Sharbuno, WI9M at (414) 355-0237.

MADISON, WI

VE exams are held in Madison every second Saturday morning of the month at 8 a.m. They are held at the operations building of the Madison Metropolitan Sewerage District at 1610 Moorland Rd. To get there take the Beltline (Hwy 12 & 18) to South Towne Drive. Go south 8/10 mile till South Towne Drive makes a bend and becomes Moorland Rd. and enter at gate.

You should bring a picture ID, your original licence and a copy of your licence. For exams beyond the novice tests, bring a check for \$6.35, made out to the ARRL/VEC. If the special 610 form with the medical exemption is required, contact me beforehand to obtain one. No appointments are necessary to take exams. For further questions, please leave a message on the mailbox or phone me at (608) 832-6631.

Mark Jenks, NZ9B

MENOMONIE, WI

VEC Exams of all levels will be held Saturday March 27, at the UW-Stout Communications Center, 820 South Broadway, Menomonie, Wisconsin. Walk-ins only. Walk in between 9:00 and 11:00 am. For further information, contact Jim Ley, NX9F. (W) 715-232-1397 or (H) 715-235-3998.

STEVENS POINT, WI

ARRL Exams in Stevens Point, Time: 0930. Place: A107 Science Building, on campus at UWSP (corner of Fourth and Reserve streets) For more information contact Joe Larson, N9JW, at 715-344-1182 evenings or email to joel8@bigfoot.com.

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August.

Monthly exams are given 9:00 to 11:00 a.m. at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted.

Talk in on 147.87/.27. Inquiries and registrations should be directed to Robert N. Jensen, W0WLN, 5616 Cambridge lane #6, Racine, WI. Telephone (414) 886-8551.

TOMAHAWK, WI

Last Saturday of every month. Jan. thru Oct. Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No preregistration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Terry Collins, KB9AUP, W6564 Highway 8, Tomahawk, WI 54487. Telephone (715) 453-4633.

APPLETON, WI - ARRL/VEC MANITOWOC, WI (HAMFEST) KAUKAUNA, WI (HAMFEST)

Conducted by the Fox Cities ARC VE team. All test sessions in Appleton are held at James Madison Jr. High, 2020 S. Carpenter Street. Testing starting at 8 a.m. For Appleton information, contact George R. Croy, W9MDP, 2113 Twin Willows Drive, Appleton, WI 54914. (920) 730-0967. For Manitowoc or Kaukauna information, contact Larry Siebers, KD9IA (920) 759-1167.

OSHKOSH (OMRO)

The Oshkosh VE Team will administer Amateur Radio exams monthly on the first Saturday. Registration begins at 8:30 a.m. and exams will be given from 9 a.m. until noon at the Omro Community Center, 130 W.

Larrabee, Omro, WI. Walkins welcomed. Bring a good quality photocopy of your original license and any other necessary documents such as a CSCE, etc. The first session will be through W5YI/VEC, and then sessions will alternate between ARRL/VEC and W5YI/VEC. The exam fee is \$6.35. For more information, please call Dick Lemme, K9FA, at (920) 235-0987, e-mail lemme@vbe.com, or write Dick at 826 Jefferson Street, Oshkosh, WI 54901.

OSHKOSH, WI (R.A.W.) - (W5YI/VEC)

February 20, 1999, May 22, 1999, August 21, 1999, October 16, 1999, December 18, 1999. Sponsored by Radio Amateurs of Wisconsin (R.A.W.) Testing sessions at UW Oshkosh, College of Nursing Building, 845 Algoma Blvd., Room 211, Oshkosh, WI. Park free in lot 29 on side of building or in lot 25 behind the building. Registration start at 9 a.m. \$6.35 per test. Bring 2 forms of id etc. Walkins are welcome. Contact: Mark Miller, N9WT, (920) 231-1662 or Mike O'Conner, K9II (920) 231-7093.

EAU CLAIRE, WI

The Eau Claire ARC will hold exam sessions on the second Saturday in the months of January, April, and October, as well as on the date of their annual hamfest during the summer. For more info: Steve Bluem KA9OMY 715-839-6509

SHEBOYGAN, WI

All sessions will be held in the Red Cross building, 2023 Erie Avenue, Sheboygan, WI, in the SCARC meeting room on the lower level of the building. This area is not readily handicapped accessible. In the event there is a candidate who would be affected by this situation, we will accommodate that person in one of the Red Cross conference rooms on the main level of the building which IS handicapped accessible. Pre-registration is necessary (we don't want get caught sort!) Contact: Art Pahr, K9XJ, N8209 Willow Road, Plymouth, WI 53073-2929. (920) 876-2370. e-mail <k9xj@excel.net>

ONALASKA, WI (ARRL/VEC)

The Riverland Amateur Radio Club will hold test sessions at the Onalaska Public Library, 741 Oak Avenue South. registration begins at 9:00 a.m. Please bring two forms of identification and two copies of all original documents, CSCEs, license, etc. For more information contact: Roger Reader, KA9BKK, 526 13th Ave. N., Onalaska, WI 54650. (608) 783-0723.

MEDFORD, WI (ARRL/VEC)

Taylor County Area AREC.. Registration starts 8:30 a.m., testing starts 9:00 a.m. Location: The conference room in the lower level of the Sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Take Ogden St. west off of Hwy. 13 to the courthouse. Park in the lots on the east or south sides of the courthouse or on the street. PLEASE use the entrance on the south side of the courthouse and watch of the signs. Walk-ins welcome. Contact: Tom Hrdina, N9GEN, 2373 Willow Ave., Medford, WI 54451. (715) 748-4054

PEWAUKEE, WI

The location is a little more handicap accessible, room S110 in the back of the science building by the handicap parking entrance. WCTC is on Hwy JJ off Hwy 16 from the East I-94 and Hwy T from West I-94 just north of GE Medical Systems. Tests start at 9:00 AM and registration ends at 10:00 AM. Contact: Al Johnson, AA7CS

HUDSON, WI (ARRL/VEC)

Sponsor: St. Croix Valley AR Testing Col. Time: Call for time and walk-in info, Contact: Gregory Miller (715)386-9857

Location: St. Croix County Emergency, Government Center by jail, Carmichal Rd. lower level, Hudson, WI 54016. (Information tnx ARRL Web site)

FRIENDSHIP, WI (ARRL/VEC)

Sponsor: Adams County ARC. Location: Adams-Columbia electric Cooperative (Community Room), 410 E. Lake St., Friendship, WI 53934. Contact: Karl Simonson, KB9EQI, (608) 565-6533. kb9eqi@iname.com

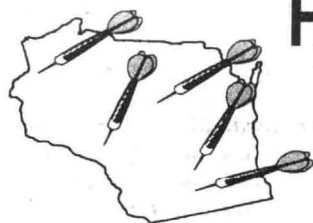
CEDARBURG, WI - ORC HAMFEST
 EAU CLAIRE, WI - ECARC HAMFEST
 GREEN BAY, WI - ARES HAMFEST
 HAYWARD, WI - HAYWARD HAMFEST
 KAUKAUNA, WI - SWAPFEST
 MANITOWOC, WI, LAKESHORE HAMFEST
 OAK CREEK, WI - SMARC HAMFEST
 RACINE, WI - RACINE HAMFEST
 RHINELANDER, WI - NWARC SWAPFEST
 ROCKFORD, IL - RARC HAMFEST
 ROTHSCHILD, WI - WVRA HAMFEST
 SOUTH MILWAUKEE, WI -

SMARC HAMFEST

STEVENS POINT, WI - CWRA SWAPFEST
 WAUKESHA, WI - KMRA SWAPFEST
 WAUKESHA, WI - MIDWINTER SWAPFEST
 DUBUQUE, IA - HAMFEST

See the Swapfest column for additional information and contact persons.

(continued on page 15)



HERE and THERE

FCC cites illegal shortwave broadcasters

The FCC has sent violation notices to two hams who -- the FCC alleges -- had used their stations to engage in illegal shortwave broadcasting on 6955 kHz. The FCC also released the names of two nonhams notified last fall in the wake of similar, alleged operations. Cited were Henry L. Landsberg, WB6MEU, of Sierra Madre,

Christopher R. Lobdell, of Tewksbury, Massachusetts.

Official Notices of Violation went out to Landsberg and Jurens on January 28. Both were cited for breaking the Amateur Service rules and given 10 days to tell the FCC how they plan to preclude similar violations in the future. Violation notices were sent to Hanna and Lobdell in November citing unlicensed operation. Their names were only recently made public by the FCC.

A letter to Landsberg from the FCC's Los Angeles office alleged that Landsberg operated his amateur station in violation of Sections 97.113 and 97.301 by broadcasting music last October 30 on 6955 kHz. The FCC's letter says the Commission used radio direction-finding techniques to track the source of a music transmission on that frequency to Landsberg's residence, and that he admitted operating the transmitter on 6955 kHz. The broadcast is said to have consisted of Halloween music.

A letter to Jurens from Oliver K. Long of the FCC's Houston office alleged that FCC agents "detected operation of a station identifying as 'Rock It Radio' on a frequency of 6955 kHz." The FCC used RDF tech-

inspection, Jurens admitted that the signal had been transmitted from his station. A Technician licensee, Jurens was cited for operating on a frequency not authorized by his amateur license.

FCC field office personnel said that Lobdell "neither denied or admitted" the alleged illegal operation on 6955 kHz late last October. Both Hanna and Lobdell reportedly refused FCC requests to inspect their radio equipment. They were cited for unlicensed operation.

The FCC letters to Hanna and Lobdell noted that civil penalties for unlicensed operation can reach \$11,000 coupled with forfeiture of equipment used. Unlicensed operators also face criminal fines of up to \$100,000 and could be sent to prison.

The ARRL Letter

Hams fill Texas communication gap

Red Cross and local emergency officials in East Texas benefited from ham radio in late January during flooding along the Sabine River. The flood gates at the Toledo Bend Reservoir had to be opened under emergency conditions January 29 after heavy rains the previous week north of the lake. The next day, the area downstream of the Toledo Bend Dam -- slightly east of the town of Burkeville, Texas, was declared a disaster location. The Red Cross headquarters in Orange, Texas, was notified that many families living below the dam were forced to evacuate due to rising water in the Sabine River.

When the Red Cross mobile units arrived on scene January 31, however, they found that their cell phones and VHF radios would not function, causing a major disruption in the provision of food, blankets, and other disaster aid. (Bold face added by BSSS; incidents such as described above have happened many times. But hams still get the job done.)

Red Cross Manager Tom Martin contacted ARES DEC J. R. Aaron, K5SUB, for help in setting up emergency communication from the affected flood area to the Orange Red Cross headquarters. Aaron then contacted Gene Vanscoy, KA5VMF, Dick Porter, KK5GV, Bill Lexa, WA5LFS, and Paul Clark, W5UHG in the Orange area to assist in relaying information via HF from the affected area to the Red Cross HQ in Orange.

The late JY1 and his other hobby



Jordan's King Hussein, JY1, enjoyed ham radio greatly. But another pursuit gave him a different way to relax and have fun: He was a pilot. Anyone who's ever seen the cockpit of an airplane will quickly tell you that this is NOT a Piper Cherokee or the like. □

THE BARGAIN MODE
SSB
SELL SWAP BUY
OUR WANT ADS GET RESULTS

WANTED: "AA" accessory battery pack for a Kenwood TH 215A HT. Call Chuck at (715) 235-

MADISON, WI SWAPFEST & COMPUTER FAIR

Sponsored by the Madison Area Repeater Association - W9HSY - Madison, WI

MIDDLETON CONFERENCE CENTER

⇒ SAME LOCATION AS LAST YEAR ⇒
TALK-IN ON 147.15 REPEATER

**Doors Open at 8 A.M.
Sunday, April 11, 1999**

**BOOTH EXHIBITORS & FLEA MARKET SELLERS
WITH 6 OR MORE TABLES AT 4:00 A.M.
ALL OTHER SELLERS ADMITTED AT 6:00 A.M.**

**ELECTRONIC EQUIPMENT AND
COMPONENTS
FOR HAMS, COMPUTER HOBBYISTS
AND EXPERIMENTERS.**

COMMERCIAL DEALERS FOR BOTH NEW AND USED EQUIPMENT.

ADMISSION PER PERSON - \$6.50 ADVANCE - \$8.00 DOOR (Children 10 & Under Free)

6 FT. TABLES - \$18.00 IN ADVANCE, \$25.00 DAY OF EVENT

✓ RESERVE EARLY - SELL OUT EVERY YEAR

**TABLE RESERVATIONS DO NOT INCLUDE ADMISSION PRICE - YOU MUST BUY SEPARATE
ADMISSION TICKET**

★ **FREE PARKING** ★

For Information on Exhibitor Booths, Contact MARA, Box 8890, Madison, WI 53708-8890
or call (608) 245-8890 - Voice Mail and announcements available 24 Hours/Day

ADVANCE RESERVATION COUPON

NAME _____ CALL SIGN _____

COMPANY _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

PHONE () _____ SOCIAL SECURITY # OR SELLERS PERMIT # _____
(Required by the State of WI)

PLEASE SEND _____ TICKETS AT \$6.50 PER PERSON TOTAL TICKET \$ _____

PLEASE RESERVE _____ 6 FT. TABLES AT \$18.00 EACH TOTAL TABLE \$ _____

(Table Fee Does NOT Include Admission Fee)

TOTAL AMOUNT ENCLOSED \$ _____

**ADVANCE RESERVATIONS MUST BE ACCOMPANIED BY AN S.A.S.E. FOR CONFIRMATION TO BE
RETURNED • ADVANCE REQUESTS WITHOUT AN S.A.S.E. WILL NOT BE GUARANTEED**

If there are no tables available, do you still wish to purchase tickets? YES () NO ()

A.C. Outlets available to Booth Exhibitors ONLY.

Make Checks Payable to MARA - Mail with S.A.S.E. to: MARA, Box 8890, Madison, WI 53708-8890
RESERVATIONS MUST BE RECEIVED BY MARCH 28, 1999 IN ORDER TO BE CONFIRMED

mobile EOC, KD5GBG. The mobile unit arrived at the Red Cross location below the Toledo Bend Dam power generating facility around noon. W5UHG, KA5VMF and KK5GV established HF and VHF links. WA5LFS, manned the HF equipment at the Orange Red Cross headquarters. In all, hams handled 28 formal and 41 informal messages.

Nearly 150 people were evacuated. Authorities reported no serious injuries, no fatalities and no one reported missing in the Burkeville area. The relief effort wrapped up February 1.

--Garland Meredith, K5VY
The ARRL Letter

Wisconsin Amateur Radio Operator Recognition Day

April 22 will be Amateur Radio Operator Recognition Day in Wisconsin. A proclamation has been approved, and there will be a ceremony in March for Gov Tommy Thompson to officially sign the proclamation. The ceremony, recognizing Amateur Radio's role in emergency preparedness and response, will be in conjunction with the Tornado Awareness Week proclamation.

--thanks to Mack Brophy, N9NTB
and Jim Romelfanger, K9ZZ
The ARRL Letter

FCC takes enforcement actions

The FCC has told a Delaware ham that she must take her Amateur Radio examinations again or lose her license. The FCC's Riley Hollingsworth, K4ZDH, says "questions were raised" about how Sheila Bowden, N3QQS, of Millsboro, upgraded to Extra. He said the FCC is requesting that Bowden start from scratch and retake "all the elements." Bowden was notified February 16.

The FCC has the authority under Part 97 to re-administer exam elements previously administered by VEs. The FCC told Bowden that she must retake the Amateur Extra Class examination series at an ARRL/VEC session before March 19 or lose her license.

Hollingsworth said the FCC plans to call in additional amateur licensees for retesting in the near future.

cess.

"The ham community needs to have a sense of confidence in the examination system," Hollingsworth said. "This is a critical link in the chain."

Last month, the FCC dismissed the Extra class license formerly held by Bowden's husband, Wayne, after the Commission discovered "irregularities in the administration of the examination by the Volunteer Examiners." Wayne Bowden, formerly AA3RT, took the complete Amateur Radio examination series at an October 4 W5YI-VEC session. He had not held an amateur license before then.

The FCC is continuing its probe into alleged testing irregularities at Pennsylvania W5YI-VEC sessions October 4 and 6, including allegations that examinees might have been coached or given test answers.

In a separate action, the FCC has suspended the HF

leges to operate below 30 MHz were being suspended for 180 days.

The license-modification letter February 16 from Hollingsworth came in the wake of an earlier warning letter to W2YEE. Hollingsworth alleged that W2YEE's 75-meter operation on February 4 and 5 was contrary to the Amateur Service Rules. Hollingsworth said Miller violated Section 97.1, basis and purpose of Amateur Radio, Section 97.101(a), good engineering and good amateur practice, and Section 97.119, identification requirements. The alleged operation took place on 3901 and 3950 kHz, the FCC said.

Miller has 30 days to formally protest the modification.

ARRL Bulletin ARLB012

SkyWarn severe weather spotter training classes announced by NWS

Updated 1/15/99

Editor's note: This list was furnished to BSSS by the Milwaukee Area SkyWarn Association (MASA). It is being published as received. Since various areas of Wisconsin are under differing NWS office jurisdictions of responsibility, the list is "segmented". Please look carefully for class information for your area.

South-Central and Southeast Wisconsin Served by Milwaukee/Sullivan NWS

Mar 1 Lafayette Co. Darlington Courthouse 3-5pm, 7-9pm
Mar 2 Green Co. New Glarus Fire Dept. 7-9pm
Mar 3 Green Co. Monroe Pleasant View/Hwy 81 2-4pm, 7-9pm
Mar 4 Iowa Co. Dodgeville Courthouse 2-4pm, 7-9pm
Mar 8 Dane Co. Madison Red Cross bldg. 7-9pm
Mar 8 Walworth Co. Elkhorn High School auditorium 7-9pm
Mar 9 Sheboygan Co. UW-Sheboygan Extension Center 7-9pm
Mar 10 Fond du Lac Co. City of Fond du Lac Courthouse 7-9pm
Mar 11 Green Lake Co. Berlin Fire Dept. 7-9pm
Mar 16 Columbia Co. Portage Courthouse 7-9pm
Mar 17 Sauk Co. Baraboo West Square Bldg. 10-12p, 2-4p, 7-9p
Mar 18 Marquette Co. Montello Sheriff Dept. 2-4p, 7-9pm
Apr 6 Milwaukee Co. Milw. Washington Park Training Ctr. 2-4pm, Milwaukee Red Cross Bldg. Hams only 7-815pm
Apr 7 Fond du Lac Co. City of Fond du Lac Courthouse 7-9pm
Apr 8 Waukesha Co. Location unknown 2-4pm
Apr 13 Dodge Co. Beaver Dam H.S. auditorium 7-9pm
Apr 14 Kenosha Co. Kenosha County Center Hwy 45/50 7-9pm
Apr 15 Racine Co. Racine Gateway Tech campus 2-4pm, 7-9pm
Apr 26 Dane Co. Sun Prairie City Hall Bldg. 2-4pm, Sun Prairie High School auditorium 7-9pm
Apr 27 Jefferson Co. City of Jefferson Courthouse 7-9pm
Not set Rock Co.
Not set Washington Co.

Mar 2 Dodge Co. Ham Radio operators only. Juneau, Dodge Co Administration Building 7 p.m. Presented by Rock River Radio Club.

Mar 27 Milwaukee Co. Ham Radio operators only. Oak Creek, Wauwatosa Savings Bank Building 7 p.m., presented by Milwaukee Repeater Club.

North & Northeastern Wisconsin Served by the Green Bay NWS

Contact your county emergency manager if you would like more information about training in your county. Feel free to contact me at jeff.last@noaa.gov for information about the class.

Mar 24 Shawano 7:00 p.m. Sheriff's Department, Shawano. Contact Emergency Mgr. for more info.

Apr 5 Outagamie/Calumet 6:00 p.m. Courthouse, Appleton. Contact Outagamie Co. Emergency Mgr for more info.

Apr 14 Waushara 7:00 p.m. TBD. Contact Emergency Mgr for more info.

Southwest and West Central Wisconsin Served by LaCrosse NWS

Contact Todd Shea, Warning Coordination Meteorologist, for more details.
Mar 10 Trempealeau 7:00 pm Independence, WI
Mar 18 Vernon 7:00 pm Coon Valley, WI
Mar 24 Clark 7:00 pm Greenwood, WI
Mar 30 Vernon 7:00 pm Ontario, WI
Apr 12 La Crosse 7:00 pm La Crosse, WI
Apr 13 Adams 6:30 pm Friendship, WI
Apr 20 Richland 7:00 pm Richland Center, WI
Apr 21 Grant 7:00 pm Lancaster, WI

West Central Wisconsin Served by the Minneapolis NWS

The webmaster indicates they will appear soon.

Northwest Wisconsin Served by the Duluth NWS

Last year's training started in March. Since they are farther north, their severe weather season starts later.

Northeast Illinois

March 5th Du Page Co. Illinois, Tornado Shelter Work Shop. Wheaton College, Du Page County Emergency Government. Requires advance registration and a fee.

Advanced Spotter Programs

March 6th Du Page Co. Illinois: ADVANCED Weather Spotters Workshop, Wheaton College, Du Page County Emergency Government. Advance registration and fee required, 8 hour program with paid hot cafeteria meal.

Note: Annually, many of the MASA crew form a car caravan for the Du Page advanced program. We typically leave Milwaukee at 6 a.m. or join at various Interstate on-ramps.

A basic SKYWARN Storm Spotter training program last about 2 hours and uses video, slides, and handouts, followed by a question and answer period. Serious interests should come prepared with pencil and notepad.

Unless noted all programs are BASIC spotter programs -- they are designed for the beginner or as a "Spring refresher". The more ADVANCED spotter training programs will be noted separately. Ideally, persons wishing to attend the Advanced programs should first learn the Basic. Spotter IDs and/or numbering systems varies with groups and geo-political borders.

Most Spotter programs are presented by NWS meteorologists (most of the above schedule). However, some programs are presented by trained Skywarn ham radio operators, TV meteorologists, MASA, County governments, severe weather educators, or other personnel who have a very high level of severe weather education. These groups which have the assistance and cooperation of the NWS will also be listed and noted.

As they become available, new training dates will be posted on this list, while old dates will be deleted. If you are aware of any program not listed, please contact me immediately. E-mail: masa@execpc.com

Rick Swierczynski, N9TPY, Assoc. Dir., MASA

SPECIAL EVENT STATIONS

USS Cobia to come alive

Up to 20 submarines nationwide may take to the airwaves April 24 and 25

W9DK (Manorad Radio Club) in Manitowoc WI will be operating aboard the WWII memorial submarine "USS Cobia - AGSS-245" to celebrate Submarine Memorial Reactivation Weekend 1999. Submarine radio rooms on as many as 20 memorial submarines will come alive with Amateur Radio activity during this time. The event is organized by the Submarine Veterans Amateur Radio Association to commemorate the anniversary of the Submarine Service.

The operation from the Cobia will be April 24 and 25, from 1400 - 2000 UTC (9 a.m. - 3 p.m. CDT).

Operating frequencies for all participating subs are: (plus or minus 10 kHz) 7.243, 14.243, 21.343, and 28.343.

Pictures of last year's museum ships and activities can be viewed on the "Tubes Forward" Web site at:

www.flash.net/~jflanders

For a QSL for a contact with the USS Cobia, send your card and a #10 SASE to Fred Neuenfeldt, W6BSF, 4932 So. 10th St., Manitowoc, WI 54220-9121.

NOTE: If you work at least four of the submarines, send a copy of each of their QSLs to Jim Flanders, W6OOG, 1539 California Trail, Plano TX 75023-4300. You will receive a master memorial submarine participation certificate.

If you are in the Manitowoc area the days of the operation, you are quite welcome to come aboard and participate with us. The USS Cobia is at the Maritime Museum in downtown Manitowoc. Contact Fred, W6BSF, at: fredw6bsf@lakefield.net or call (920) 682-9312 for additional information.

Fred Neuenfeldt, W6BSF

BADGER STATE SMOKE SIGNALS

Subscription Form Regular Individual Subscription Rates

1 Year: \$13.95 • 2 Years: \$25.95 (save \$1.95) • 3 Years: \$37.95 (save \$3.90)

PLEASE PRINT!

Name: _____ Call Sign (if any): _____

Address: _____ City: _____ State: _____ ZIP: _____

☐ 1 Year ☐ 2 Years ☐ 3 Years ☐ New ☐ Renewal

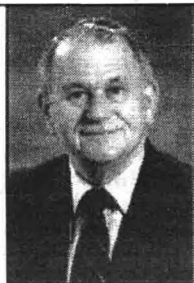
Send this form, with your check or money order, to Ken Ebner, 822 Waukena Trail, Portage, WI 53901.

Please do NOT send cash!

MARCH 1999

Corner

By Stan Kaplan, WB9RQR • 105 Martin Drive
Port Washington, WI 53074-9654
(414) 284-9346
WB9RQR @ N9PBY.EN63BI.WI.USA.NA
SKAPLAN @ MCW.EDU



No. 64: An Upgrade Need Not Be Expensive

Well, maybe a little more than \$5.00, but if you are willing to do a little work and spend a little time, you can get quite a value. You have to be willing to assemble the parts yourself, and it is just about guaranteed that, if you do, you will also learn a lot about computers. Here is my recent experience with the process.

I have two computers in my office. My main machine is a Pentium 166 MMX with a big screen and all the bells and whistles. I actually purchased it ready made a few years ago, using funds from a windfall I did not expect. It cost over \$2,500 at that time. A good machine, it has given me excellent service, and was on the "cutting edge" when I purchased it. My second computer was a 486 - 100 MHz unit that I used for database, some graphics and general DOS work. It was very handy, since I could be writing an article on the Pentium, then pause and use the 486 to do a drawing or other task necessary for the article without shutting down the file in my primary machine. In early January, I decided it was time to upgrade the 486 to a Pentium (which I am using right now to write this article).

I got on the web and looked around for components. One of the places I looked was Surplus Auction, recently taken over by EggHead, which used to be a chain of software outlets around the country. You can bid on items offered there (<http://www.surplusauction.com>), which turned out to be my source of all upgrade parts except for memory and a fan. I purchased memory locally at Best Buy, and a heatsink/fan for the CPU (an absolute necessity for the CPU - it gets HOT) at a local Computer Gallery store. Here is a list of the items I bid on and won (at different times over the period of a month or so), and the prices I paid (note that the prices shown INCLUDE shipping charges):

ITEM	COST
Pentium motherboard with 1 Mb cache, 2 USB, 2 SER, 1 PAR port, etc.	\$53.95
Intel Pentium 233 MHz CPU	104.95
ATX Mini-mid tower case w/250 watt power supply	63.95
CD ROM (24X)	26.95
Creative Labs Blaster Video Board, 4 Mb 100 MHz SG RAM)	26.95
Heatsink and fan for CPU	15.84
64 Mb parity SDRAM 168 pin, (price shown is after rebate of \$20)	96.15
TOTAL	388.74

The only other items used not listed above were the hard drive, keyboard, mouse, 1.2 Mb floppy drive, 1.44 Mb drive and monitor, all of which I had on hand from the 486. Actually, I had a video board and CD ROM drive on hand too, but elected to upgrade both these items in the process (my old CD ROM was only double-speed, and the old video board had only half a meg of memory on it).

Not a bad price for an upgrade. Moreover, the new machine is easily 25% faster than my other Pentium, and several times as fast as the 486. It really smokes along!

Some things to watch for.

1. If you plan to use your old case and power supply, be sure the new motherboard is compatible. For example, ATX form motherboards use a power supply connector that is different from the old 2-plug style.

2. Be sure you understand exactly what type of memory the new motherboard requires. For example, just because a 168 pin DIMM memory module will plug into a new board doesn't mean it will work. There are a number of different types of memory modules even within one physical style. Be sure to get the right one.

3. Get your motherboard first. It may well have one or two IDE connectors or serial and parallel (and USB or FireWire) ports and even video cards built right into the board. What is there and what is not will dictate what additional cards you need to buy, or which ones you can use from the old computer.

4. Get the fastest CPU that the motherboard will support - it will pay in the long run.

5. Don't even think of getting less than 64 Mbytes of RAM. You can get along with 32 Mbytes in Windows 95 or 98 only if you plan to do nothing but word processing. Memory is too inexpensive right now to hobble the machine by getting too little.

6. Have fun with it!

7. Happy computing!

Reprinted, by permission, from the ORC Newsletter, Ozaukee Radio Club, 101 E. Clay Street, Saukville, Wisconsin 53080-1903 (Skip Douglas, KA9DDN, Editor). □

In Memory of a Silent Key

(Some "words" for a funeral or memorial service)

Art Pahr, K9XJ, of Plymouth, has written and has available an excellent homily for recitation for a Silent Key. It has "fill in the blanks" sections, and suggestions for topics to add. It's exceptionally well written. If you'd

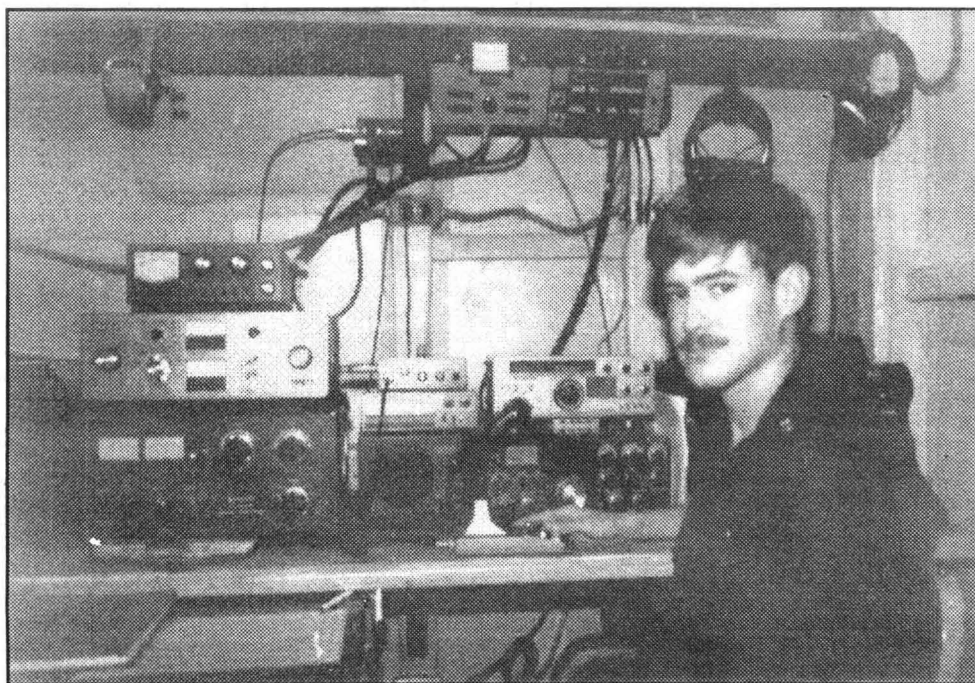
like to have a copy, send an SASE to Art Pahr, N8029 Willow Road, Plymouth, WI 53073. You may also request a copy by email to k9xj@excel.net.

Editor

icebreaker "Glacier": Part 3

By Sherm Carr, W9NGT

This is the third part in a series of the personal log of Sherm Carr, W9NGT, who sailed from Australia to Oregon aboard the Coast Guard's icebreaker "Glacier". His son, Mike, was posted to that ship, and Sherm and son sailed together on her voyage to her decommissioning in Astoria, Oregon.



The Glacier's Chief Electronics Technician, Mike Parsons, takes a turn at the operating position of the ham shack aboard ship.

Photo courtesy Sherm Carr, W9NGT

1400 - still 18 March

We are moving into a "flat" weather map, and seas will be back down to the ever present ground swell by mid or late evening.

The hamshack is doing great. Pete loves to operate, and I handle the phone to line up the customers. We change off every two hours or so, or whenever I can pry Pete loose from the rig. He is better at the phone, because he knows where to find everyone.

A relief system has been set up so those on watch don't miss their turn. We average 10 to 12 patches an hour, but the sign up sheets are still full. Our Stateside stations are just great. We are getting to be real experts at this business. The Kenwood gear performs flawlessly, and we have many West Coast outlets.

We had to shut down for a while during Flight Quarters. Flight operations with the helicopters requires all transmitters to be shut down, and antennas grounded, except for the VHF aircraft communications gear. I had briefed our patch stations and the Maritime Net that we might disappear on short notice. When we got back on the air the band was folding, so our total for today is down somewhat. 94 patches so far. Not bad.

I watched flight operations for a while. The helicopter pilots have an uncanny feel for dropping their craft to the flight deck at the precise instant to allow for the ship's motion.

Flight quarters again. I was alert this time. When the ship suddenly was running smooth on the flight operations heading, we were shut down and grounded when flight quarters was sounded.

1700 - still 18 March

Was invited to the Captain's cabin for "Tea and crumpets" as son Mike calls it. It is a weekly affair, to let folks relax and visit, and enjoy coffee and snacks.

Captain Hammond was aware of our problems and adventures, to the last detail. He was obviously pleased that things were going well. I mentioned that I didn't see his name on the signup sheet. (The signup sheet is first come, first served, regardless of rank, per the Captain himself) He said, "There's plenty of time." I guess I was not surprised at his response. It was a most enjoyable time.

2230 - still 18 March

Settled in, Bill's plot made, paperwork done, Coke and ice, and Mike and I visited. We've talked more since I came aboard than we have in years, what with Mike away at sea most of that time. Glacier's upcoming decommissioning comes up now and then. This is her 30th trip to the Antarctic. She was Admiral Byrd's flagship in the early years, and has compiled a record of performance that will never be matched. There are bigger, faster, and more powerful icebreakers, but they do not have Glacier's character. It is sad indeed, to realize that when this mission is completed, she will sail no more.

1100 - 19 March

Coffee and a roll at breakfast, and up to the hamshack. With the window pretty well established at 0000 to 0400Z, the schedule is pretty well set. Patches continue, and business is brisk. I haven't touched the Kenwood gear except for the VFO in the 430-S as we roam up and down the band. We check into the Maritime Net, contact the always waiting patch stations, and then up to 14.330, which we virtually own, for traffic.

The Polar Seas, and Polar Star, the other two Coast Guard ice breakers, are eight and eleven days ahead of us, and they are also busy with phone patches.

The starboard bridge wing antenna is now patched directly to the big rig through its own matching network. Mike Parsons was concerned about the 6 dB or so difference, and made the change. Our fade margin is now better than 20 dB. With

Please turn to page 8

THE AUTOMATIC POSITION Reporting System (APRS)

By Tom Weeden, WJ9H

Part 1 - Introduction to APRS

You may have seen various articles in amateur radio magazines, ads for radio equipment, or heard people talking about "APRS" and wondered what it was. This series of articles is presented to introduce operators to the Automatic Position Reporting System and present its benefits to the ham radio community.

APRS uses standard packet radio to transmit position information and other brief status messages. It was developed by Bob Bruninga, WB4APR, several years ago and continues to be refined today. WB4APR wrote the APRS software to run under DOS on a PC, even an old 8088. Others have adapted the software to run on Windows and Macintosh machines.

Traditional packet uses a "connected" protocol, where each packet sent is acknowledged by the receiving station, or by an intermediate node. Operators can type to each other in a keyboard-to-keyboard QSO, or connect to a bulletin board (BBS) to read and send messages. In recent years, with the popularity of the internet growing, some have lost interest in packet BBSs. However, the uniqueness and versatility of APRS has renewed interest in packet radio in many areas of the country.

So what's so special about it?

Let's say I wanted to send a beacon packet to let others in my area know that I'm a new station on the air. Using traditional packet, I might program my TNC to send a beacon to say "WJ9H - Tom in Madison, WI" every 5 minutes. It doesn't take a rocket scientist to realize that this type of beacon would quickly annoy everyone on the frequency, and it doesn't convey any new information when it repeats. Multiply this one station by several more and you end up with a clogged frequency.

Suppose I ran a "smart" terminal program that sent the beacon, waited a bit, sent the beacon again, doubled the wait time, sent it again, and continued doubling the wait time. If no information in the beacon changed, soon the transmissions would "decay" to once in several hours.

Now, what if we could standardize how positions were transmitted? Remember the "Tom in Madison, WI" packet? How about adding latitude and longitude to pinpoint my QTH? What if all these position packets could be plotted graphically on a map on the computer's screen? You're starting to get the feel of APRS.

But what good is it? Let's look at the possibilities. You could enter current weather data at your location and send it. Other APRS users would see weather conditions from around their area graphically. If you have a home weather station, APRS could take that data and send it out automatically. Do you have a GPS receiver? Take the data output from a GPS into a newer TNC and transmit your mobile location automatically. APRS also can do direction finding, and even be used in foxhunts by stations using nondirectional antennas! But remember, if you're already on packet, you don't need any extra equipment to get started -- just the APRS software. And if you're just curious, you don't even need that, just your terminal program.

Most APRS activity nationwide is on 144.390 MHz. Fire up your packet station on that frequency and monitor for a while. If you're in range of other APRS stations on VHF, you'll see packets similar to this:

```
AA9AD>APR827,KB9KEF-10,WIDE*:=4255.40N/08914.11W-NewUser
N9UUR-10>APRS,WIDE3-3:14302.29N108755.60W&PHG6340/ Milwaukee
APRServe IGate
WB9WOZ>APRSM,KA9VNV-3,AE9A-10*,TRACE3-1:The Northern
Illinois APRS Network welcomes you
N9WJV>AA9JW-7:find your antenna?(001
VA3DRV-9>GPS,WIDE:Hdg 2 Chicago, thurs AM, 731
AE9A-10>BEACON,WIDE3-3:14258.09NN08811.30W#PHG5370/WIDE
WA9KCU>APRS,AE9A-10*:0110423z4312.34N/08843.50W_315/003g008t
035r006p115...h58b10258dDvs
WJ9H-9>GPSLV,WIDE,AE9A-10*,WIDE3-1:$GPGGA,003558,4302.916,N,
08930.143,W,1,06,1.1,334.1,M,-34.3,M,,*7E
```

N9UUR-10 sent the position of his Milwaukee APRS internet gateway along with its power and antenna height and gain. Other stations sent a simple one-line message either to everyone, or to a single station. WA9KCU sent a weather packet with data generated by his Davis home weather station. WJ9H-9 sent a GPS position which APRS decodes and plots on a map.

Let's dissect one of the packets.

WA9KCU>APRS,AE9A-10*:

WA9KCU transmits an UNPROTO packet through the AE9A-10 digipeater. The asterisk indicates that you heard the digipeater.

@110423z

Date and time stamp. (11th of the month, 0423 UTC)

4312.34N/08843.50W

Latitude and longitude in degrees, minutes and tenths of minutes.

_315/003g008

The _ symbol indicates a weather packet. The wind is from 315 degrees (NW) at 3 mph, but a gust of 8 mph was recently measured.

t035r006p115

The temperature is 35 F, the rain in the last hour was 0.06", and precipitation in the last 24 hours was 1.15" (NOTE: automatic rain gauges don't measure snow!)

...h58b10258dDvs

The humidity is 58%, the pressure is 1025.8 millibars, and the device generating the data was a Davis weather station.

That's a lot of data compressed into a single packet!

is that APRS by nature is unconnected, sending only <UI> frames. There are no acknowledgments since the transmissions are meant for many stations to receive. The information that is constantly being updated is transmitted more often, and the messages that don't change decay away.

Next month, we'll discuss how to set up your new 2 meter APRS station. I'll assume you're already on packet with a computer that can run DOS. You'll need to get the latest version of APRS, which can be downloaded from the TAPR (Tuscon Amateur Packet Radio) web site at www.tapr.org. (If you don't have internet access, have someone who does download the software for you. It will fit on one floppy disk.)

In the meantime, you can see APRS in action via the internet by browsing to <http://www.aprs.net>. Since the page runs a Java application it may take a minute to load. Select Central USA to see nearly-live activity in southern Wisconsin. Also check out N9UUR's web page at <http://www.execpc.com/~n9uur> for Milwaukee-area APRS information, or the Northern Illinois APRS Network's page at <http://nian.aprs.org>.

(Tom Weeden received his Novice license in 1971 and today holds Extra class. He operates mostly APRS packet along with some 2- and 10-meter voice and ATV. He has been Chief Engineer at WMTV/Madison since 1991. He runs APRS 24 hours a day on an old 386 so the family can have use of the "good" computer.) □

QRZ.COM

By Richard Regent, K9GDF

When we are on the air, QRZ means "Who is calling me?" But on the internet, it is an up-to-date database called QRZ.COM where Amateur radio operators can quickly find out who is calling by typing in the callsign. The free online service of address information of all amateurs quickly displays. It's a fun, colorful and easy to find someone by just searching with a callsign. But what if a friend has changed callsigns? Then just type in the last name and get a list of everyone with that name, plus first names and other clues. There are even lists of new licenses, new calls, unusual calls and unused callsigns. This service is even better than the old standard printed paper callbook (out of print since 1997).

Besides the free database search, each call may have a separate page of information, including a written biography of up to 500 words in length. Many amateurs list their education, other hobbies, special interests, background and occupation. A photograph can be uploaded to add interest for web surfers. There are data fields for email addresses (in case the radio skip is out for the moment) and a listing of a URL for a personal web page.

It is easy to enter the data, yet the system appears amazingly secure. I followed the directions to upload my photo and by the time I got back from my messenger email program and enter my call into the QRZ.COM, there it was. A personal page may be updated at any time.

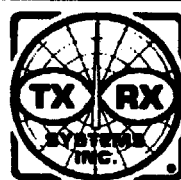
Take a look at some Wisconsin examples. K9UTQ has a photo of his beautiful QSL card on his page with a neat biography. KA9FOX, who works in web page design, shows a photo of himself operating at his HF station. Silent Key W9BCC has an eulogy on his page from one of his students for which he was an Elmer. Deceased amateur listings have a SK note as the information becomes available. Type in my call, K9GDF, to see a color photograph of me that was originally over 1 megabyte huge. QRZ.COM uses a graphic compression program to reduce the number of photographic bytes without noticeably sacrificing image quality. If you don't put your call at the bottom of your photo, QRZ.COM automatically and impressively adds it to the photo.

Besides these services, QRZ.COM offers other useful information for radio modifications, shareware programs, user pages, radio clubs, commercial sites, a QSL card gallery and of course The QRZ Store.

QRZ Ham Radio CDROM is the number one best selling amateur radio software package of all time, now it is online. Yet the company remains a small family business run by AA7BQ and his wife Brigitte, from a spare room of their home! Check it out for yourself. Get on the internet, type in QRZ.COM, and wait a few seconds. At the entry screen type in an old call or last name of a long lost ham buddy. You may quickly rediscover a friendship. □

PE-75 GENERATORS WANTED

I am looking for military PE-75 generator sets in non-working or working condition. If you have any, please contact Jeff Klopp, WA9USA, 508 West Oakland Avenue, Port Washington, WI 53074-2120, or call me at (414) 284-4639.



VARI-NOTCH® DUPLEXERS FOR 2 METERS

The TX RX Systems Inc. patented Vari-Notch filter circuit, a pseudo-bandpass design, provides low loss, high TX to RX, and between-channel isolation, excellent for amateur band applications. TX RX Systems Inc. has been manufacturing multicoupling systems since 1976. Other models available for 220 and 440 MHz, UHF ATV and 1.2 GHz.

MODEL 28-37-02A

144-174 MHz
92 dB ISOLATION AT 0.6 MHz SEPARATION
400 WATT POWER RATING

TX RX SYSTEMS INC.

Dave Barquist, K9PAK, Factory Representative
414-367-2929 or E-Mail txrx@electrodets.com



19" RACK MOUNT

icebreaker "Glacier": Part 3

Continued from page 6

support like this, our mission cannot help but succeed! The only noise is atmospheric, and readability is perfect down to about S-4 or so. It is a real plus when propagation begins to fail.

I had a tour of the engine rooms this morning. Ear protectors are a must. It is hot down there and the noise is horrendous. The engines are Fairbanks Morse, opposed piston diesels, rated at 2200 horsepower, each driving a 1200 kW generator. There are six engines in one engine room and four in the other. Status board ammeters showing propulsion motor currents, are calibrated in kilo-amperes. When I was there they were showing 3400 amperes each. Fascinating. To understand Glacier, one must think big. BIG, that is.

The two main propulsion motors run at about 100 to 130 RPM, which is propeller speed. They are cooled by a 350,000 cubic feet per minute blower. To enter the motor housing one must go through an airlock, as air pressure is almost twice atmospheric. Propeller shaft diameter is 26 inches. The vibration sensor and readout on the huge commutator housing jiggles right around zero. At 125 RPM, the propulsion motors run at some 97.7% efficiency.

1630 - still 19 March

Iced tea and apple pie for lunch and back up to the shack. Business is great; our best day so far--46 patches in 3 1/2 hours. With time zone changes, our schedule changes to stay on Zulu time, so we need to let the OPS operators know ahead of time. Son Mike keeps me posted on zone changes, so we are in good shape. I've neglected to note time zone changes, but when we left Sydney, we were 11 hours from West Coast time. We change time zones every three days or so. At 310 to 330 miles per day, zone changes are delayed several hours on some occasions, so that watches will not go beyond four hours. That means 11 zone changes by the time we reach Astoria, Oregon.

Son Mike stopped by earlier. He had the 0800 to 1200 watch, but Captain Hammond relieved him to roam about a bit. We tried a patch for us both, but no one answered at home.

All outside hatches are secured now, to preserve "Cool." On deck it is well above 90 degrees, and doesn't drop much at night, but in the shack and below it is a comfortable and dry 85. We are some 650 miles from the equator, so it will be hot for some time yet.

There was a cookout on the flight deck today. Pete ran the shack while I went to eat, and I took a well loaded plate back for him. Propagation folded at about 0330Z, so we closed up shop a little early. We've worked out a system to do some of the paperwork as we go, so we both have some extra time off. Coast Guard practice requires complete logging of each contact; names, phone numbers, locations, etc., etc. Pete is a first class operator. I am sure glad he is available.

2230 - still 19 March

There's a good breeze on deck, and, except for the ever present ground swell, seas are almost calm. Glacier is back to her slow, sedate roll of 5 degrees or so. Mike came out and joined me for a while. It is at this time, after dark, with the ship's running lights glowing, and all is quiet except for the noise of the bow wave and the muted rumble of the engines, that the mission we are on is most enjoyable. It is a very special "Time out" from the very busy shipboard activities. I've gotten to look forward to it.

We went below, got mugs of ice and Coke, and settled in. Got Bill's plot made. Mike is studying, and I read for a while and fell asleep. Too much cookout.

Extra note: As of 2130 (Ship time) we are at 09° 50' south, and 159° 59' East. We pass near the Southernmost Santa Cruz islands tomorrow early, still on good old 047. Another time zone change at 2315. This will put us five hours from the West Coast and seven hours from Wisconsin. We don't roust people out of bed anymore, and I am relieved. Some folks get shook up when the phone rings in the middle of the night.

We are some 69 hours from the Equator, the Dateline, and the Equinox. There will be a course correction to 045 in about four hours. Son Mike briefs me on all this navigation data, and he double checks my journal to make sure I get it straight. So far he hasn't caught me in a mistake.

1300 - 20 March

Propagation is poor today, and OPS radio is busy. I hear their RTTY jingling away almost constantly. With the shack secured, I like to roam around. There is so much equipment and machinery to see. Checked out the evaporators today. They generate up to 20,000 gallons of fresh water per day. It is also very hot in that compartment too, even with the high volume ventilation system. In roaming around, I still get lost, but there's always someone handy to point me in the right direction.

We are operating again. OPS radio took it upon themselves to monitor for us, I found, and alerts us when propagation picks up. Checked into the Pacific Island Net, with NCS KG6HA, on Guam. I discovered he is a 30 year veteran of the Coast Guard. Small world. He stopped the net so we could chat, and I gave him a summary of our adventures. A station on Tinian called in, and said he knew me, but I lost him before I could get his call. Rats! I'll track him down later.

1650 - 21 March

Skipped journal writing last night, my first miss. Long hours caught up with me. Fell asleep in Mike's bunk, so he took my upper bunk.

It is HOT on deck, and everyone stays inside. Hamshack operations are going full speed. Pete is a gem. He is not licensed yet, but I'll bet he'll have one soon. Operation is routine now, and I am concerned about our Stateside stations. They have stayed with us constantly, and are always waiting for us when we open up.

We have contacts all over the Pacific during "dialup" time, and a pipeline to the States. We are starting the second time around with a "repeater" and "followup" list so the crew can check on progress of arrangements back home. The phone patch traffic has a dramatic effect on the "Patchees." It is most gratifying to know I've had a part in an operation like this. What we amateurs take pretty much for granted, to non-amateurs, is some sort of magic.

can help it! And, you can, too.

Written for BSSS by Don Michalski, W9IXG

The average of today's ham operator is 57. FCC license numbers are, for the first time, showing a real decline in the number of hams. One reason cited is the busy schedules people have in this era. So, Don, W9IXG, (and others, we understand) came up with a solution: a crash course. It works! And there's another coming in April in Madison. It's something your club can do, too. Here, Don tells us what they did, how they did it, and gives the results..

The UW Space Place Amateur Radio Center, in conjunction with the Four Lakes Amateur Radio Club and Badger Amateur Radio Society, held an entry level ham course over one intense weekend in January. This free workshop was extremely successful (that weekend, 24 signed up and 18 received Technician no-code licenses, 4 passed Novice Element 2). I'd like to share some of my experiences in coordinating the event in the hope that other communities and clubs would consider doing the same.

The course was a combination of home study prior to the event and the ARRL video tape series for Technician class licenses at the workshop. For the workshop to be successful, students were required to get the ARRL book "Now You're Talking", 3rd edition, and study the book well in advance at home.

At the workshop, I divided the video tape presentation into short 15 minute segments and then had an instructor ask for questions and provide clarifying answers and demonstrations. The video tape series was excellent! It hit all the key points in a concise manner and took the load off the instructors. The workshop could not have been done without the videos. There is just too much material to pack into a weekend workshop without using every aid available. I tried to assign the instructors to segments that were their specialty or interest. I had 6 instructors for the weekend. Here is an outline of the course agenda:

HAM COURSE OUTLINE

SATURDAY, JANUARY 16, 1999			
TIME	SUBJECT	INSTRUCTOR(S)	ALLOTTED TIME
8:00 a.m.	Introduction	Don	10 minutes
	Morse Code Demo	Jim	20 minutes
8:30 a.m.	Getting Started (10 minute video)	Tim C.	20 minutes
	Magic of Radio (37 minute video)		60 minutes
	[Wavelength, Freq. Bands Demo]		
10:00 a.m.	Break		15 minutes
10:15 a.m.	Types of Emissions (21 minute video)	Gari B.	30 minutes
	Electronic Principles (35 minute video)		60 minutes
	[Basic Electronics Demo]	Brad	15 minutes
12:00 p.m.	Lunch Break		30 minutes
12:30 p.m.	Practical Elec. (36 minute video)	Gary D.	60 minutes
	Operating Considerations (22 minute video)		45 minutes
	[Equipment Operation Demo]	Brad	15 minutes
2:30 p.m.	Break		15 minutes
2:45 p.m.	Antennas & Feedlines (50 minute video)	Gari B.	60 minutes
	[Antenna Demo]		15 minutes
	Repeaters (16 minute video)	Colin	30 minutes
	[Repeater Demo] 15 minutes		
4:45 p.m.	General Discussion	All	15 minutes
5:00 p.m.	Practice Take Home Exam Distribution		
SUNDAY, JANUARY 17, 1999			
9:00 a.m.	Safety (11 minute video)	Gari B., Brad	30 minutes
	R.F. Radiation Safety (64m video)		60 minutes
10:30 a.m.	Break		15 minutes
10:45 a.m.	Radiation. Safety (Cont.)	Gari B., Brad	60 minutes
	[Radiation Safety Demos]		15 minutes
12:00 p.m.	Lunch Break		30 minutes
12:30 p.m.	FCC Regulations (54 minute video)	Dave S.	75 minutes
1:45 p.m.	Freq. Privileges (20 minute video)	Dave S.	30 minutes
	Repeater, RTTY, Packet (5 minute video)		15 minutes
	[QSO Demos]	Brad	15 minutes
2:45 p.m.	Break		15 minutes
3:00 p.m.	Exams! (Written & Optional Code)		3 hours

I took the video time and added roughly an equal amount of time instructors had to teach. This worked out about right. The schedule is very tight and it was necessary to keep a close eye on the clock to prevent overruns. Next time, I will add a longer lunch break and more time for demonstrations. Demos help!!

Another key point was good communications with the students before the workshop. I strongly feel that email and the web was a major factor in keeping everyone informed and motivated. I made a special folder of the all the students email addresses and would send them sites that were pertinent, e.g., on-line sample tests. Also, it turned out to be a good way to periodically encourage the students to keep studying, not get discouraged and come to the workshop, etc. It worked!! Everyone showed up. The workshop filled in the gaps that they needed to know. The VEs said that, for the most part, the students not only passed but did so with honors! They *knew* the material!

There were ten VEs to administer the exams. While it wasn't necessary to have that many, it sure helped move the testing along smoothly. The exam portion took the allotted time of 3 hours.

After they receive their licenses, help them! Point them to Elmers to assist in equipment purchases, Morse code, license upgrades, etc. In Madison, FLARC and Madison Area Repeater Association gave each graduate one year free club membership! This is a community "happening".

In summary, the event went better than anticipated. Not many folks have the time to spend weeks in formal class instruction. The crash weekend course was a winner and word has spread around Madison that you don't have to be a genius to become a ham. Folks are looking forward to the next workshop in April! Our hobby needs new people to keep it going and survive! GET INVOLVED!!

If you care to put something like this on in your community, I'd be willing to answer any further questions to help you.

73, Don Michalski, W9IXG, SPARC president
dem@sal.wisc.edu • (608) 263-4685 (w); (608) 274-3253 (h)

The equipment performs flawlessly, and we pretty much "own" 14.330. I haven't touched a control except the 430-S VFO since Sydney. Time passes swiftly. Shipboard routine is constant activity. Son Mike's deck force is working on paint and brightwork, and Glacier will surely sparkle when we arrive in Maui.

Tomorrow we will see how close Glacier will cross the "Intersection." Sidereal noon tomorrow will be 1301:10, ship's time. There is some excitement on board. Lieutenant Keith Johnson, Operations Officer, is the coolest. He put the data into the computer before we left Sydney. For the last 47 minutes to the intersection, Glacier will be 100% computer controlled for course, speed, drift, and set. It should be interesting!

How close did "Glacier" get? Find out in April BSSS!

at JSC in Houston

Continued from front page

Key NASA official stated that they, too, need a single, international focal point to coordinate Amateur Radio development and operations on ISS if Amateur Radio on ISS is to have a future. During the meeting, these NASA officials were extremely pleased with the high level of flight hardware expertise and on-orbit operations knowledge that the ARISS international partners are providing to NASA and Energia. The ARISS international team was formed over two years ago to provide this single focal point to the space officials at NASA (US), Energia (Russia), NASDA (Japan) and ESA (Europe).

Frank Bauer, KA3HDO, AMSAT-NA's Vice President for Human Spaceflight Programs, commented, "I was extremely impressed with the tremendous teamwork, camaraderie and cooperation that the ARISS International Partners exhibited during these pivotal meetings with NASA and Energia. Together we share a common vision to develop and operate a multifaceted Amateur Radio station on ISS that will be a great recreational outlet for the on-orbit crews, an exciting DXpedition station for hams on the ground and an outstanding educational outreach tool for students." In the near future, additional information from these meetings will be provided including discussions on:

- ARISS Initial Configuration & Delivery Schedule to ISS
- Antenna System Design
- Antenna Locations on Service Module and initial plans for ARISS EVAs
- Meetings with NASA Senior Managers
- Digitalker design
- ARISS Frequencies
- Future installation of an SSTV system
- Express Pallet opportunities

The ARISS hardware team discussed and reaffirmed their long planned commitment to solicit proposals from the Amateur Radio community to develop follow-on Amateur Radio hardware for ISS. Proposals chosen to proceed forward would then be coordinated through a NASA/Energia employee-based radio working group that would negotiate power, volume and operations scenarios for the proposed equipment. The ARISS international team is composed of representatives from the IARU and AMSAT societies in Russia, Italy, Germany, England, France, Canada, Japan and the US. The Space Amateur Radio EXperiment (SAREX) Working Group provides the US hardware and administrative representation to the ARISS international team. Within the US, they coordinate the US hardware development, operations and educational outreach activities for the ARRL, AMSAT-NA and NASA.

[Info via Frank Bauer, KA3HDO ARISS-US
Delegation]
AMSAT news service

NEW PRODUCTS

MFJ-392 Communication Headphones

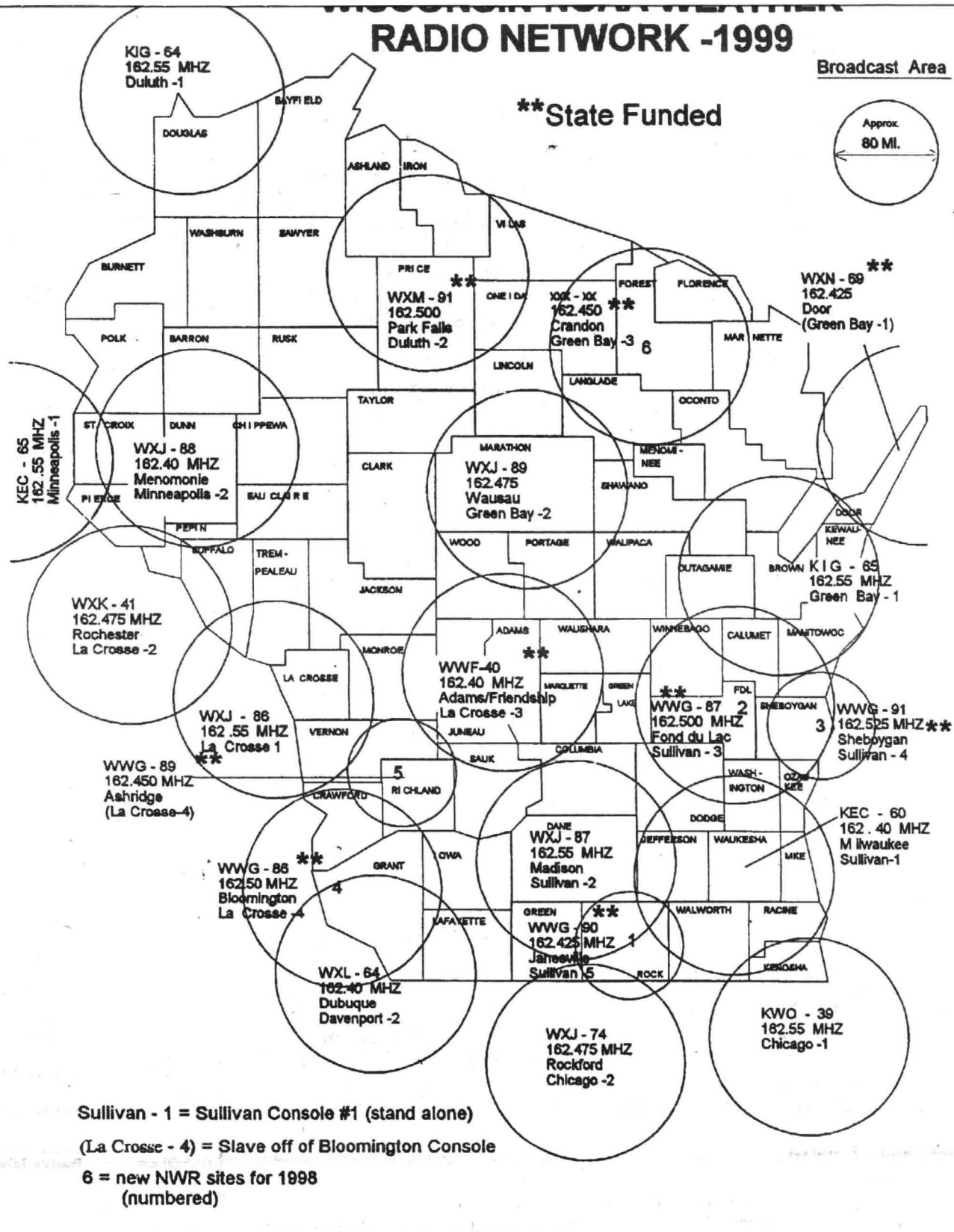


RADIO NETWORK -1999

Broadcast Area

****State Funded**

Approx.
80 MI.



MFJ's new Communication Headphones are perfect for Amateur Radio and shortwave radio listening. they're great for all modes - SSB, FM, AM, data, and CW. Each earphone has individual volume volume/bass controls. They are priced at \$19.95.

Superb padded headband and ear cushioned design makes listening extremely comfortable. You'll forget they're even there!

High-performance 40mm driver unit reproduces enhanced communication sound. SSB, CW, and other signals never sounded so crystal clear! These communication headphones will bring out speech fidelity you never knew existed.

Near zero loss on signal transmission from the gold plated plug and cord. These super lightweight earphones (8 ounces) come with 9 feet of cord so you can easily

move about the shack and still listen to your radio.

MFJ-392 handles 450 mW, and has a frequency response of 100-24,000 Hz. Impedance is 16Ω at 1 kHz, sensitivity is 102 dB/mW. Works in mono or stereo mode. Includes free 1/4 inch phono adaptor.

MFJ's *Communication Headphones* are covered by MFJ's famous *No Matter What™* one year limited warranty. That means MFJ will repair or replace (at our option) your product for one complete year.

To order or for your nearest dealer, call (800) 647-1800; FAX (601) 323-6551; email mj@mjenterprises.com; or check out dealer and ordering information on our fantastic Web site: <http://www.mjenterprises.com>.

MFJ news release

5TH ANNUAL SUPERFEST AMATEUR ELECTRONIC SUPPLY

Over 30 Manufacturer Reps

Including displays of new product lines being carried by AES (M2 Antennas) and first-time displays of established favorites (Sony)

Specials, Closeouts and Deals
Informational Forums

Michael Staal - M2 Antennas, Bob Heil - Heil Sound Ltd., Gordon West - the Guru of ham and annual Superfest favorite

License Testing

Club and Organization Memberships

FREE! Admission, Popcorn, Coffee & Soda

PRIZES! PRIZES! PRIZES! PRIZES! PRIZES!

JOIN US

Friday, April 9th from 2P.M. to 7P.M. and
Saturday, April 10th from 8:30A.M. to 3:30P.M.
5710 W. Good Hope Rd. Milwaukee, WI 414-358-3337

Unable to Attend?

You can call any AES location during Superfest hours to check on any Specials or Coseouts that may be available. Updated information is also available on the web at www.aesham.com



PARTICIPATING CLUBS AND ORGANIZATIONS

The Racine Megacycle Club



Club Station W9UDU • Racine, WI
Dennis Doonan, W9DAD, Secretary
c/o RMC • P.O. Box 3 • Racine, WI 54301-0003

e-mail: w9udu@wi.net

Web: <http://www2.wi.net/~hamradio/>

Voice mail: (414) 552-6RMC • ARRL Affiliated

Providing communications for American Red Cross and ARES

MEETING MINUTES January 11, 1999

The January 11, 1999 regular membership meeting of the Racine Megacycle Club Inc. opened at 7:31 p.m. at the American Red Cross Building. President Rees Roberts, K9UUT, Vice President Bob Burgermeister, W9EH, Treasurer Greg Holding, KB9RMA, and Secretary Dennis Doonan, W9DAD, were present. Six members braved the snow and were present.

Secretary W9DAD read the minutes of the November 10, 1998 regular membership meeting. W9EH made a motion to accept the minutes as read, KB9QZR seconded, and the members approved by a voice vote.

Treasurer KB9RMA read the treasurer's report. W9EH made a motion to accept the report as read, KC9IS seconded, and the members approved by a voice vote.

There were no committee reports.

For old business, President K9UUT summarized the Christmas Pizza party that was held in place of the regular membership meeting. K9UUT also reminded members the dues were increased to \$15 per year.

President K9UUT read a card from Joan Fox thanking both the Racine Megacycle Club and the Lakeshore Repeater Association for their donation to the *Badger State Smoke Signals* in memory of Jim Fox, W9LXY.

Under new business, Mary, N9ZWE, announced that Al, N9ZWJ, has recently upgraded to Technician Plus.

President K9UUT read a letter from the Red Cross stating after June 1999 we no longer have the use of the meeting room on Monday evenings. We have to find a new meeting location or hold our meetings on weekdays, Saturday evenings, or on Sundays. K9UUT indicated this was strictly a business decision and does not indicate a lack of willingness to use our

services. The national Red Cross organization is requiring local chapters to be financially self-sufficient. They intend to use the rooms for additional classes. A discussion with the membership provided some possible meeting locations. No action is being taken at this time.

President K9UUT discussed a presentation to the board of directors made by Randy Reusser, N9LTA, of Carthage College. Carthage has a new video conferencing lab that is linked to numerous other ones in the state. The links include video, audio, and high speed data links. N9LTA has taught a successful amateur radio class at Carthage. N9LTA asked the Racine Megacycle Club to provide instructors and assistance. This would allow us to present Amateur Radio classes state wide.

President K9UUT announced Bill Folk, KB9PUD, is a silent key.

President K9UUT presented the board's decision to have an auction rather than our usual hamfest. This is based on the declining attendance at all area hamfests. The details have not been completed.

Hamfest chairman Rob, KF9ZT, has agreed to be chairman of the auction.

President K9UUT asked if the membership would be interested in field trips as a possible replacement for formal meetings. The consensus was the membership is interested. President K9UUT then presented the new meeting format. There will be a general business meeting one month and a program / social meeting the following month.

KB9RMA made a motion that the meeting be adjourned at 8:36 p.m. W9EH seconded and the membership voted by voice in favor of the motion.

Following the regular membership meeting, Rees, K9UUT, presented a brief discussion of amateur satellite operation using an HT. The emphasis was on the easy to work AO-27 satellite. A URL was provided so satellite pass times could be provided in a tabular format.

□

Wisconsin Valley Radio Association

Kim Kunze, N9SDL, Secretary

P.O. Box 363 • Wausau, WI 54402

Six Meter Repeater: 51.19 Input/52.89 Output

MEETING MINUTES February 2, 1999

Meeting was called to order by N9SDL. Members present:

N9NMH	N9IA	BN9LIA
KB9DED	N9TTA	KB9RXA
KB9FRB	KB9DZG	W9VHA
N9SDL	N9NQN	N9PHC
N9NRC	KB9RXB	W9WW

We had two guests, Paul LaVanway who just passed the Novice and Tech written exams, and Dick Sternberg. Minutes approved: N9NMH and N9LIA. Treasurer's report: Approved: N9IAB and N9NMH.

Old Business

Status of the W9SM 2 meter repeater: The new radios are in and running. However, there is some inter mod getting in to the transmit. This will be looked at.

We are looking for a net control for the 3rd Wednesday of the month. Also, to those of you currently serving as net controls, thanks for your help. Also be aware that there are alternates available in the event that you are unavailable for your

turn. Please utilize the alternates so that we may continue to provide the WVRA Wednesday night net.

Mike, KB9DED, has a copy of the Trustee Policy from the RMRA that we can view and follow similar policies and procedures for our own.

New Business

Some ideas were discussed to publicize the WVRA Club:

Mike, N9IAB, will talk to John Jordan at Channel 10 public access TV to see if we can have an acknowledgment to the club.

Other ideas: Creation of a Web page, an new brochure, use of local media Calendar of Events. We are looking for suggestions for a web page or QRZ.com web page information.

Up coming programs include:
Weather Spotting at the March meeting.

Club elections in April.
Adjournment: N9TTA and KB9DZG
The program for the evening was an ARRL video tape on Contesting.

Respectfully submitted:
Kim Kunze, N9SDL

Wisconsin Nets Association Ltd.

Art Evans, KA9KLZ, Secretary

213 N. Jefferson • Cuba City WI 53807-1558

WISCONSIN NETS

Net	WNA	Freq.	UTC	CST	Manager
BWN	Yes	3985	1300	0700	W9RCW
BEN	Yes	3985	1900	1300	KE9VU
WSBN	Yes	3985	0030	1830	WB9WHQ
WNN	Yes	3723	0100	1700	KB9OCZ
WSSN	Yes	3645	0130	1930	N9BOL
WIN/E	Yes	3662	0200	2000	WB9ICH
WIN/L	Yes	3662	0500	2300	W9UW
RCRA	No	01/61 (Mondays CDT)	0130 (Menomonee Area)	1930	KA9OMC
Gr. Bay	No	72/12 (Green Bay Area)	0345	2145	WB9NRK
ARES	No	4.65/5.25 (South East/South Central Wisconsin)	0300	2100	
RACES	No	3993.5 (LSB Sunday)	1500	0900	WA9OAY

Wisconsin Nts Traffic Report January 1999

Traffic and check-ins were up, but net time was down a little in January. With all seven nets reporting, 3272 stations passed 2040 messages in 5403 minutes. BWN/1776, BEN/58, WSBN/50, WNN/18, WSSN/23, WIN-E/85, and WIN-L/40.

Seven stations had traffic totals in excess of 100, five of whom made Brass Pounders League. The stations are: K9RTB/872 (BPL), K9JPS/787 (BPL), WB9YPY/502 (BPL), W9IHW/502 (BPL), K9GU/408 (BPL for over 100 deliveries), W9CBE/245, and N9KHD/149.

Twenty seven stations submitted Station Activity Reports and ten submitted Public Service Honor Roll Reports.

Wisconsin needs another digital (pac-

tor/amtor) station to give some relief to Hale Blakely, W9CBE. Hale has been handling several hundred messages per month and needs some help. Anyone who is interested in becoming a digital rep for Wisconsin, contact either Hale or me.

I mail my reports to League Headquarters on the 7th of the month. That makes the deadline for reports the 6th. I can accept reports until I start printing them up for mailing. If you can catch me on the BWN on the morning of the 7th all would be well.

Hale Blakely, W9CBE, Asst. STM will also accept reports and forward them to me. Hale covers most of the CW and SSB nets so there is someone on almost every net to take reports.

Reports can also be sent via packet or

Continued on page 11



SHEBOYGAN County Amateur Radio Club

Steve Eisold, AA9SJ, Secretary
2220 N. 20th Street • Sheboygan WI 53083

2-Meter Repeater: 146.06 Output

February 1999

The Sheboygan County Amateur Radio Club membership meeting for February was canceled and a Valentine's Dinner was held on February 13th. Sixteen members and guests attended the dinner at Klemme's Wagon Wheel in Howards Grove.

We regret to report that Chuck Oddo, WB9ODP, became a silent key in late December. He had been an active member in the club and was often heard on the local repeater. A donation was made to a memorial in his name.

The "WE CARE" program is being reinstated at the local Pick 'n Save store. Any members interested in helping the

club receive donations from Roundy's Inc. can contact Steve, AA9SJ, for more details.

Net Schedules

8 p.m. Monday nights
SCARC Fun Net
147.06 MHz
PL 107.2, +.

Respectfully submitted:
Steve Eisold,
AA9SJ

□



WB9QFW 2-Meter Repeater 146.07-.67 and Club Station

2229 Dixon Street • Stevens Point, WI 54481

Meeting Minutes

severe weather net:

The following are the CWRA meeting minutes from January 1999:

There was no regular monthly business meeting of the Central Wisconsin Radio Amateurs, Ltd. The CWRA held its annual banquet at the Sky Club Restaurant in Plover, Wisconsin. There were 33 people in attendance. Mike Peters, W9CO, and Mary Eiden, KG9OK, received the Exceptional Service award. The awards reads as follows:

Mike Peters, W9CO, received the Exceptional Service Award for his leadership and extraordinary efforts in resurrecting our Field Day exercise. His dedication, drive and skill as an operator brought credit to the entire organization.

Mary Eiden, KG9OK, also received the Exceptional Service Award for her enthusiastic, steadfast and quality efforts on behalf of the organization. Her tireless commitments as officer, participant, and web master deserve our gratitude and respect.

The following are the meeting minutes from the February 10, 1999 CWRA meeting:

President Al Mallek, K9WVM, called the meeting to order at 7:30 p.m.

Secretary Mary Eiden, KG9OK, read the minutes from our first newsletter and apologized for not getting them in to BSSS on time. She said she would include them with this month's meeting minutes.

There was no official program, however, Kathy Mallon, KG9NX, presented the club's first newsletter, which is an on-line newsletter. She handed out copies to those who do not have Internet access at the meeting. The address for the club newsletter is <http://www.g2a.net/~sheseeks/cwraweb.html>. Mary said that she will add this link to the club's web site.

Ron Howe, NJ9H, passed out autodial instructions for the .985 repeater with the new changes made to them. There are instructions for the .67 repeater, which were not available at this meeting, but will be available shortly. It was reported that .985 is working well. Bob Baird, W9NN, reported that the echo is not working. Ron said he would check this out. Ron encourages everyone to try his or her autodial numbers. He also said he deleted the message that has been on the repeater for sometime that says "Net Tonight at 9." He stated that the back-up battery needs to be replaced. A motion was made by Art Wysocki, N9BCA, and Jerry Fadness, W9GF that the back-up battery be replaced. The motion passed and a back-up battery will be purchased.

Al, K9WVM, reported that the cables have been run at the club station and that the station is now on the air. There is a computer available there for RTTY. Al also said that the rotor needs to either be repaired or replaced. Once the weather is warmer, it can be looked at.

Al reported that there will be a weather spotting class on March 10. He said that we can decide at that meeting when and what time to reinstate the net. The class is at 6:30 in the training room at the Portage County Sheriff's Department in the County City Building. This is the same night of our regular monthly meeting. The class will be held before the meeting. The following is a list that will be given to Sandy Curtis, Portage County Emergency Government Director, of the people who will be available to be called to activate a

Bob Baird, W9NN
Al Mallek, K9WVM
Kathy Mallon, KG9NX
Joe Larson, N9JW
Art Wysocki, N9BCA

Kris Scheppe, KB9LYT, will be conducting a fun Net on Tuesday, February 23. There is also a net participation group (not a class) meeting on Tuesday, February 16 at 7:30 at Blake's Restaurant in Plover. Kathy Mallon, KG9NX said it would be a round table discussion on net participation and protocol. Kris will also be making a presentation at the university to try to get more university students involved in amateur radio. He has received information from the ARRL for his presentation. It will be on March 3.

Joe Larson, N9JW, reported that Special Olympics has moved to the second weekend in June. The dates are June 10, 11, and 12. This is a non-Swapfest weekend. Joe said they would again be looking for volunteers for this event. Joe will give more information at the next several meetings.

Kathy Mallon, KG9NX, Jan Rydberg, KB9RUJ, and Mary Eiden, KG9OK, reported that they have gotten together to start the preliminary work on the swapfest. They stated that they will need lots of help and have created several job duties for things that need to be done for the Swapfest. Mike Peters, W9CO, will be handling the vendors. Mike Eiden, WD9JID, will be coordinating the VE testing with the assistance of Jerry Fadness, W9GF. There are other jobs to be filled and Kathy, Mary, and Jan would like people to come forward and take on some of these positions. They have assumed some of these jobs, but we need EVERYONE'S help to make the Swapfest work! You can contact either one of these people if you would like to help.

The raffle was also discussed and Art, N9BCA, made a motion to have cash prizes this year for our raffle. Jan, KB9RUJ, seconded, and the motion was passed. We do, however, need someone to come forward and handle the raffle as Scott Jasper, NE9U, will not be handling it this year.

The next CWRA Meeting will be held at the training room at Sheriff's Department at the County City Building. The spotter class begins at 6:30 p.m. with the meeting to follow. Joe Larson, NJ9H, moved to adjourn, Kathy Mallon, KG9NX, seconded, the motion passed and the meeting adjourned at 8:56 p.m.

Respectfully submitted:
Mary Eiden,
KG9OK,
CWRA Secretary

Attendance

Mary Eiden
Al Mallek
Kris Scheppe
Jan Rydberg
Mike Eiden
Ron Howe
Bob Baird
Art Wysocki
Vern Avele
Mike Peters
Joe Omernik
Kathy Mallon
Joe Larson

KG9OK
K9WVM
KB9LYT
KB9RUJ
N9MI
NJ9H
W9NN
N9BCA
W8UF
W9CO
N9CGV
KG9NX
NJ9H

Club officer correction

In the Section Manager's column for February, there were some errors in the officers listed in the New Pinery Road Amateur Radio Club. They should read: President, N9TD; Vice-President, KB9NEL; Secretary/Treasurer, KF9ZU; and Trustees K9VSO and W9EIL.

Thanks K9FHI

Mancorad Radio Club

Mary Langer, KB9GOY,
Secretary

P.O. Box 204 • Manitowoc, WI
54221-0204



2-Meter Repeater: 146.01 Input/146.61 Output

MANCORAD MINUTES

February 10, 1999

The monthly meeting of ManCoRad was called to order at 7:35 p.m. by President, Fred, W6BSF. Introductions were made all around.

The minutes of the January meeting were approved as published in the "Badger State Smoke Signals" with Len, N9QFO, making the motion and being seconded by Dick, N9QFY.

The treasurer's report was given by Roger, W9NPX. A motion to accept was given by Ken, K9HAG, and seconded by Theresa, KB9KXE.

OLD BUSINESS

Club room inventory and cleaning scheduled for January will be rescheduled for March sometime after the regular meeting.

Jerry, K9JHK, from Sheboygan will come for the March meeting and give a slide show presentation on Voice of America.

Ron, WS9X, and Janice, N9IQZ, have put together a new roster list with special events and a calendar of events listed at the bottom. Those not present will receive theirs in the mail. Thanks for your effort Ron and Janice. Also, Ron made up a new macro list which was handed out at the meeting.

Fred, W6BSF, read a letter from the Governor proclaiming April 22 as National Amateur Radio Day.

The National Weather Service in Green Bay is offering a severe weather spotting course at the Manitowoc County Sheriff Dep't. It will be a 90 minute course and Fred has reserved 15 chairs and specified that April would be a good time for club attendance. Please let Fred know if you are interested in attending this course. Fred will announce when the date is set.

Fred, W6BSF, has announced we are welcome to join Sheboygan for Field Day. If interested, contact Fred for details. Field day is always the last weekend in June.

Fred, W6BSF, read some thank you cards the club received. One was from Clancy, K9WIX, whose brother passed away and the club sent some flowers. Our sympathy goes to you Clancy and your family. The other was from Ron, WS9X, and Janice, N9IQZ. Their son was injured in a snowmobile accident and he is recovering very well.

Fred, W6BSF, has been working on a new QSL card for the sub event coming up April 24 and 25. Red, N9GHE, made a motion to print up 1000 of the new cards and Dan, N9FVZ, seconded it.

NEW BUSINESS

The club approved the membership of Rahlf Proulx, N9AWG. He is a technician and works at Holy Family Hospital. He attended the February meeting to get acquainted with everyone. Welcome to the club Rahlf.

Fred, W6BSF, announced there will be a RACES drill coming up on Tuesday, October 5, 1999. It will involve the Kewaunee Nuclear Plant.

Red, N9GHE, gave a hamfest report. Our only fund raiser will be May 8 at Manitowoc County Expo. Things are moving along real well. Ron, WS9X, and Janice, N9IQZ, are due a big thank you for all the work they have done so far to get things rolling. The sign up sheet needs to be filled so please do your part.

Patti, KB9NNX, had her name drawn for the monthly membership drawing. Since she was not at the meeting, the prize will increase for next month.

Erv, W9OMO, brought a condenser speaker plate from 1930 to show the club. He found these in radio in his radio repair days. He always has something interesting to share with the club. We want to wish him a belated happy birthday also. He just turned 88 years young.

The meeting was adjourned at 8:20 with a motion by Dan, N9FVZ, and seconded by Len, N9QFO. Lunch was enjoyed by all.

Submitted for approval:
Mary Langer, KB9GOY
Secretary

CALENDAR OF EVENTS

March 10, 1999 - Next club meeting

April 24 and 25, 1999 - Sub weekend on the USS Cobia

May 8, 1999 - Hamfest

October 9, 1999 - Fall family picnic at Lincoln Park Cabin #1

January 7, 2000 - Christmas Party Cedar Ridge

MEETING ATTENDANCE

W9NPX - Roger	N4WKG - Denise
W6BSF - Fred	K9HAG - Ken
KB9GOY - Mary	KB9KXE - Theresa
W9OMO - Erv	K9DUX - Bill
N9QFY - Dick	N9QFO - Len
N9AWG - Rahlf	N9GHE - Red
N9XEZ - Bill	WS9X - Ron
KB9NTL - Don	AA9WI - Paul
WB9VYO - Vic	N9FVZ - Dan

WQP participants!

Although BSSS is no longer going to be able to print the results of the Wisconsin QSO Party, it doesn't mean we aren't interested in participants' stories and photos. Those stories and pictures have always been interesting looking and great reading. Please send pix and stories to Jim Romelfanger, K9ZZ, Editor, 412½ Ash Street, Baraboo WI 53913-2501. Thanks in advance for your input!

Wisconsin Nets Association Ltd.

Continued from page 10

e-mail.

My packet address is:

KA9KLZ @ KC9KQ.WI.USA.NOAM

My e-mail address is:

aevans@mhtc.net

Thanks to all stations who participate in the Wisconsin nets. You are the nets and Wisconsin nets are the best. 73.

Submitted by:
Arthur A. Evans, KA9KLZ
Wisconsin Section Traffic Manager
February 8, 1999

Quarter Century Wireless Association Southeastern Wisconsin Chapter 162

Larry McCalvy, WA9JMO
5400 Six Mile Road
Radne, WI 53402



Our Valentine gathering on Valentine's Day was a most enjoyable outing. We met at the Chancery Restaurant just north of the Illinois/Wisconsin state line. The food, service, fellowship and atmosphere were outstanding. President Spencer Clope, W9LDH, handed out the revised chapter activities schedule for the balance of the year as he welcomed the members and their guests to our annual sweetheart event. After the meal, Spence called Bill Hawes, W9ERG, to the podium (it was really the head of the table, but podium sounds like we're a high class act) and presented him with two QCWA certificates. One is for 50 years of continuous Amateur Radio licensing; the second for 50 years as a Radio Amateur. Bill was first licensed in 1948 with four of his high school buddies. The group can be found on 75-meters kibitzing during the evening hours, I have been told. Congratulations, Bill!

As we departed the afternoon's festivities, each lady was given a red carnation and each gentleman a white carnation from the chapter.

As winter meanders across the calendar, several chapter members, in an attempt to hurry up the process, are headed for warm February vacations. Ed (W9NVK) and Marie Konicek are flying to the Island of St. Lucia for a week of

relaxing sun bathing. Larry (WA9JMO) and Wendy (N9PAC) McCalvy are flying to Acapulco to board the RCCL Vision of the Sea cruise ship for an 11-day trip through the Panama Canal and exploring the islands in Caribbean. We can hopefully expect to see some pictures at our next meeting.

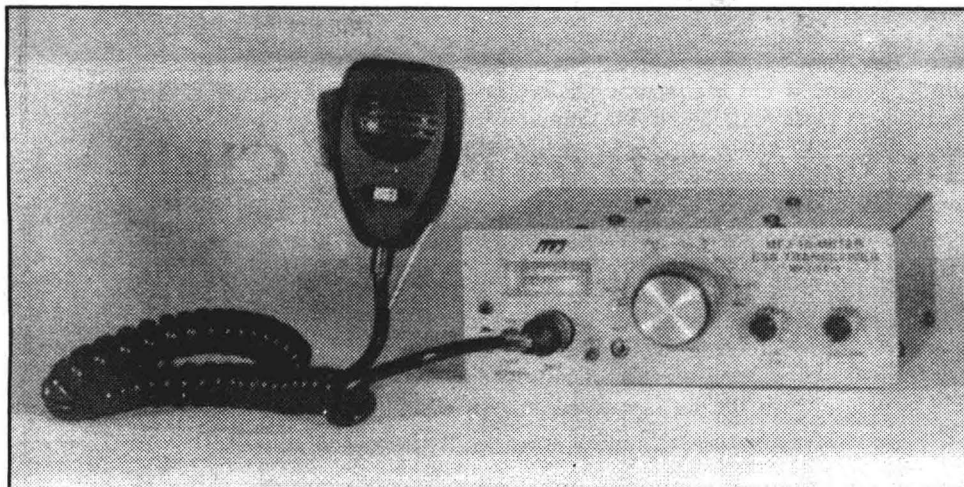
That meeting will take place at the Meadows Restaurant in Franksville, Highway "K" three miles east of the Interstate on Monday, March 15, beginning at 7:30 p.m. Those wishing to dine before the meeting might want to arrive at 7 p.m. Our president has not informed me of the agenda, but I am sure it will be most interesting, so please try to join us.

Plan to join in our Anniversary celebration on Sunday, April 18 at Bentley's American Grille Restaurant in the Marriott Hotel, 7111 Washington Avenue, beginning at 12:30 p.m. I will have our history files out for your viewing pleasure (and hopefully up-to-date). If you are an AARP member, bring your membership card and enjoy a -percent discount on your Sunday Brunch. There are a few perks available as we slip into the senior ranks.

73, Larry McCalvy,
WA9JMO

NEW PRODUCTS

MFJ-9410X 10-meter SSB transceiver



The MFJ-9410X is a 20-Watt PEP USB transceiver designed especially for fixed or portable radio communication in the ten-meter band. Energy-efficient analog circuitry and syllabic speech processing deliver superior on-air performance while conserving valuable power.

The MFJ-9410X uses a single-conversion mixing format and a low-noise heterodyne VFO for enhanced weak-signal performance. The transmitter features a built-in 7-element low-pass filter to reduce interference at TV and FM broadcast entertainment frequencies.

Other features include a sharp HF-communication grade crystal, IF bandpass filter, built-in heavy duty speaker, fully analog mechanical S-meter, optional semi-break-in CW module, and intuitive "easy-to-operate" controls. No microprocessor mumbo-jumbo here, just turn on and tune in!

Potent signals come from 20 Watts PEP, plus Constant Current™ syllabic speech processing adds 4 to 6 dB advantage to cut through noise, fading, and QRM.

Low drain lets you operate from a 3 amp AC supply or a 12-volt battery. All-analog circuitry means highest energy efficiency.

Hot receiver uses a low-noise preamp and active DBM front end to dig deep into the noise to capture the weak ones. If the signals are there, you'll hear it!

Excellent selectivity comes from a sharp 2.3 kHz SSB ladder filter. It reduces passband noise, fights QRM, and improves intelligibility. Has TVI protection. A built-

in 7-element filter knocks down TVI - lets you operate day or night, when you want to!

Steer your beam with pin-point accuracy and give meaningful reports on this real full sized analog S-meter. You can also monitor speech processing level. You get agile tuning with no unexpected tuning rate shifts or stair-stepping. Reduction drive analog VFO lets you scan the band for signals quickly, then zero in smoothly. Best VFO for Hunt-and-Pounce operation!

Loud, powerful audio comes from an efficient 3 1/2" top mount speaker. Robust audio overcomes ambient noise. A 1/4 phone jack accepts standard stereo headphones and cuts off speaker automatically. Attenuated output protects phones and ears, makes gain adjustment easy. A solid state FET switch keys external amplifiers.

This baby was built to last! A conservative design, premium-quality plate-through PC board, quality components, handsome brushed aluminum panel and tough vinyl-clad case makes this radio last for years of dependable service.

At home or traveling the world, you'll enjoy superb 10-meter performance with your MFJ-9410X Ten Meter Adventure Radio. Comes with dynamic SSB microphone.

MFJ Communication Headphones are covered by MFJ's famous No Matter What™ one year limited warranty. That means that MFJ will repair or replace (at our option) your product for one complete year.

To order or for your nearest dealer, call (800) 647-1800; FAX (601) 323-6551;

Taylor County Area Amateur Radio Club

Bill Yeager, Sr., N9FSZ, President
979 N. Front Street, P. O. Box 283
Rib Lake, WI 54470

MEETING ANNOUNCEMENT

The next regular meeting will be held on Thursday, March 4th at 7 p.m. in the Emergency Government meeting room located in the basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Talk-in on the 147.15 Medford repeater (+600 kHz) or 146.52 MHz simplex.

IMPORTANT UPCOMING DATES

3/25/99 - National Weather Service SKY-WARN training at Rib Lake starting at 7 PM, location TBA.

4/21/99 - Simulated ARES/SKYWARN net to be held in conjunction with Tornado Awareness Week. Details to follow.

4/24/99 - Pine Line Marathon, running from Medford to Prentice. ARES communications request is expected.

5/1/99 - VE Amateur Radio test session in Medford, time and location TBA.

CLARK/TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE (ARES) NEWS

Mike Schoenfuss, N9GHZ
ARES Emergency Coordinator

Don't forget to try to check into the weekly ARES net held Wednesdays at 8:30 p.m. on the Medford repeater (147.75/147.15). If the repeater is down or not functioning properly, alternate frequen-

cies, in order, are 147.15 MHz simplex and 146.52 MHz simplex. You're also encouraged to volunteer for net control duty for the net.

CLUB ANNOUNCEMENTS

•Effective 12/15/98, the 147.75/15 repeater located at Medford, WI is now on full-time PL(CTCSS) access. The tone is 114.8 Hz (tone 2A).

•Elections for 1999 TCAARC club officers were held at the February meeting with the following results: President, N9GHZ; Vice-President, AA9LE; and Treasurer, N9UBQ.

Please note that we are still without a club secretary. Anyone wishing to volunteer to fill this position should contact a current club officer.

IMPORTANT REMINDER

1999 Taylor County Area Amateur Radio Club membership dues and Badger State Smoke Signals subscription renewals are now due and payable. Dues can be paid at an upcoming meeting or can be sent to club treasurer Roland Sacho, N9-UBQ, N 2302 Sunset Dr., Medford, WI 54451. Dues are \$10.00/year. The club member's share of their club subscription to BSSS is \$7.00/year for 1999. Checks should be made payable to Taylor Co. Area Amateur Radio Club.

NOTE: If your club dues and/or BSSS subscription are NOT paid for by March 31, 1999, your access to the autopatch and other new repeater features will be revoked and your BSSS subscription will be terminated. Also, the club treasury is presently at an all-time low, but we still have regular expenses to pay for. So get those dues in today! Don't delay! □

Red Cedar Repeater Association, Inc.

Steve Hart, KA9OMC, Secretary

E616 810th Avenue

Knapp, WI 54749

2-Meter Repeater: 146.01 Input/146.61 Output

Greetings, RCRA sponsors and guests.

Time is short at the time of this newsletter with preparing our annual auction.

Please make welcome KG9CT, Chuck Bricston at Spring Valley and K0DL, Don Lund at Menomonie to our sponsor list.

KB9LUK, James Kinney at Eau Galle, reports the packet radio link in complete between W9NNS at Holcombe and the Minneapolis MN area on 145.69 MHz. Call KB9LUK-3, or for node operation call LUK-13 where there are 8 open channels for chatting.

KB0LYL, Art at Red Wing, MN, reminds amateurs to join him on Sunday evening at 8 p.m. for their ARES net on the 147.300 MHz repeater.

The Rochester MN hamfest will be April 10. Call (507) 285-6522 for details.

N9FVA, Chuck Thomas, is looking for a "AA" battery accessory pack for a Kenwood TH 215A HT. This is the BT5 case. Call Chuck at (715) 235-5920.

Skywarn training at the Dunn County Judicial Center will be April 15 by reservation. Call Eddie Goldsmith at (715) 232-2333.

Menomonie VEC exams be March 27 at UW-Stout Communications Building. Call NX9F, Jim Ley, at (715) 235-3998

e-mail mfj@mfjenterprises.com, or check out dealer and ordering information on our fantastic Web site: <http://www.mfjenterprises.com>.

MFJ news release

for info. Walk-ins only.

AA9UK, Rod Steele at Chippewa Falls, worked an OA4 east of Lima, Peru recently. Rod is also helping with the Mission Eau Claire Project ham radio training on Saturday mornings at South Middle School.

W9AVM, Jim Humphrey at Elk Lake, continues to finish resurfacing logs on his home. Besides helping with Mission Eau Claire, Jim has been doing additional wiring at the home and indicates he is also now wired online and getting email.

KB9SGY, David Garrett at Elk Lake, reports that his mother, Yvonne has passed portions of her Novice license at Mission Eau Claire.

KB9RQE, Dan Holmen at Colfax, is studying classic languages and learning to write in symbols along with studies in calculus.

The next social hour will be March 23 at 1414 9th Street at the Peppermill Restaurant in the L-Mart shopping center. Meeting time will be 7:30 p.m., and we will be going over the results of the February auction.

RCRA Secretary/Treasurer
Steve Hart, KA9OMC

Please be sure you tell our volunteer writers, photographers and cartoonists you enjoy their work here in Badger State Smoke Signals!

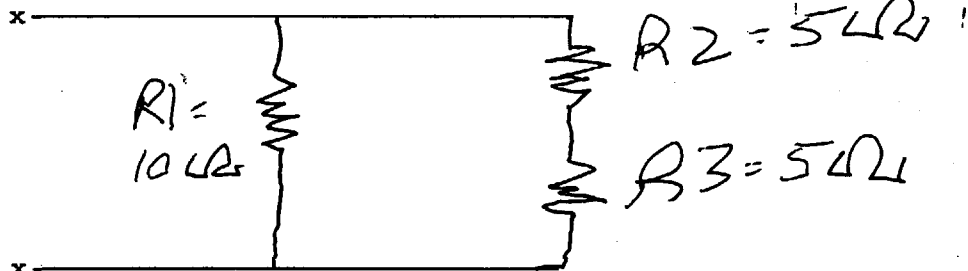
BSSS March 1999 Quiz

The following quiz is presented for your edification, information, frustration, and general disgust. However, it is not without its reward. Here are the rules and the prizes: Entries must be from current subscribers. Entries may be submitted by either the U.S. Postal Service or by e-mail. Entries will be accepted up to and including March 18, 1999. They

must be sent to BSSS Quiz, Jim Romelfanger, K9ZZ, 41214 4th Street, Baraboo, WI 53913-2501 (somkesigs@baraboo.com). They will be tossed in a box. The first one drawn having all questions answered correctly will win \$15.00, a \$25.00 gift certificate from MFJ Enterprises, and a NASA

photo. No entries received after March 18, 1999 will be accepted. No one on the BSSS staff or its editorial board are eligible, nor anyone involved with production and/or printing. No entries will be accepted from winners less than one full year from March 18, 1999. Good luck!

1. Here is a series-parallel resistor combination:



- (1) What is the total resistance of R2 and R3?
- (2) What is the resistance of the combination at the "x" terminals?
- (3) If ten volts are applied at "x", what is the current flow in amperes?
- (4) Under the above conditions, how much power is dissipated in the resistors?

2. Who writes a well-known and respected monthly column about computers for BSSS?

3. Where is "Rich's Surplus" located?

4. Why does the very popular G5RV antenna require an antenna tuner?

5. Where can you go to "Recycle" a "Radio"?

6. In late summer and early autumn, VHF and UHF signals may travel well beyond their expected range, with strong and steady signals. What is the name of this phenomenon? (One or two words.)

7. If you work a VK6 station on HF, where is that station located?

8. Of the three modes listed, which is best for weak-signal work on 2 meters?
AM FM SSB

FCC suspends Jersey ham's HF privileges

The FCC has suspended for six months the HF privileges of a New Jersey ham. The FCC notified Walter P. Miller Jr., W2YEE, of Edison, New Jersey, that his privileges to operate below 30 MHz were being suspended for 180 days.

The license-modification letter February 16 from the FCC's Riley Hollingsworth, K4ZDH, came in the wake of an earlier warning letter to W2YEE. Hollingsworth alleged that W2YEE's 75-meter operation on the evening of February 4 was contrary to the Amateur Service Rules. Hollingsworth said Miller violated Section 97.1, basis and purpose of Amateur Radio; Section 97.101(a), good engineering and good amateur practice; and Section 97.119, identification requirements. The alleged operation took place on 3901 and 3950 kHz, the FCC said.

"Specifically, you were apparently broadcasting and talking to no particular station for several hours, during which time you prevented the use of the frequencies by others and maliciously interfered with other stations attempting to use the frequencies," Hollingsworth wrote. He said the Commission also had information indicating similar behavior occurred the next evening on 75.

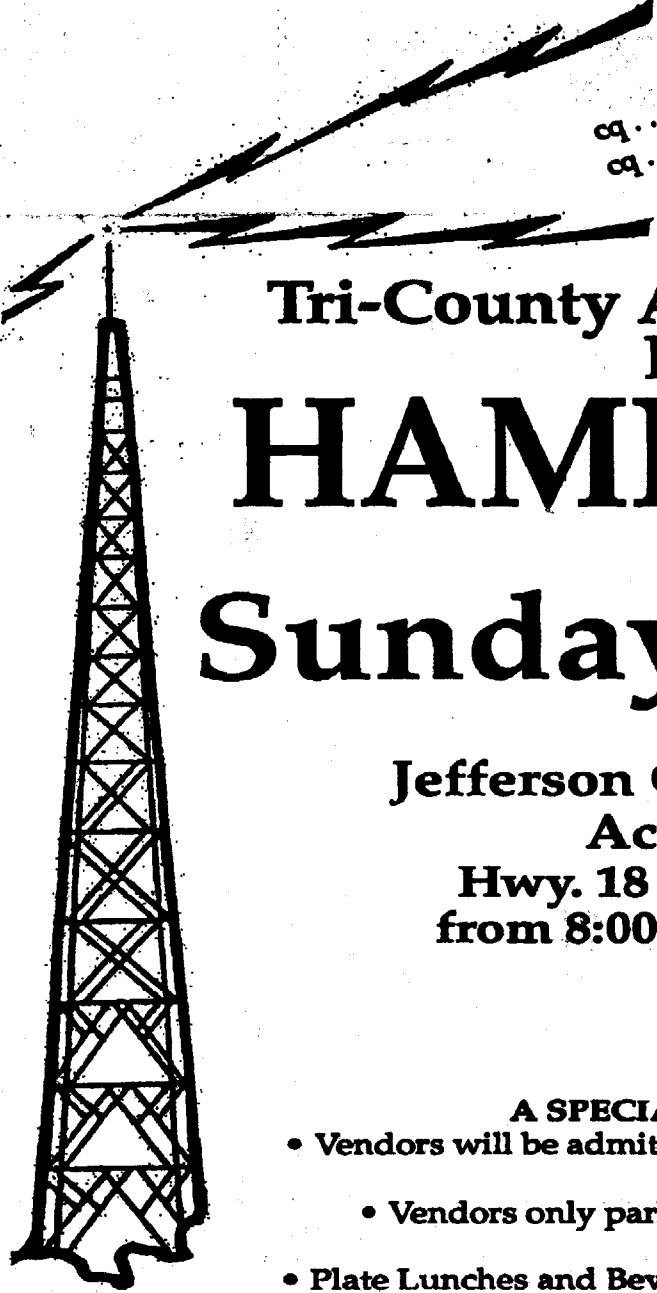
"Such operation endangers the basis and purpose of Amateur Radio as a service, degrades it for other licensed operators and cannot be tolerated," Hollingsworth wrote.

Section 97.1 Basis and purpose, of the rules discusses the public service value of Amateur Radio, as well as its contribution to advancing the state of the art; expanding the reservoir of trained operators, technicians and technical experts; and enhancing international goodwill. Hollingsworth is on record linking certain types of on-air behavior with a negative perception of Amateur Radio in other countries.

A warning letter had gone out to Miller January 8 regarding similar operation. The FCC informed Miller at that time that he faced license revocation and fines.

Hollingsworth told Miller that the FCC was modifying his Amateur Radio license to prohibit HF operation for 180 days from February 16, the date of the modification notice. Miller has 30 days to formally protest the modification. If he does not protest it, the modification order expires August 16.

The ARRL Letter



Tri-County Amateur Radio Club Presents:

HAMFEST 1999

Sunday, March 21

Jefferson County Fairgrounds Activity Center

**Hwy. 18 West, Jefferson, WI
from 8:00 A.M. until 2:00 p.m.**

VE Testing

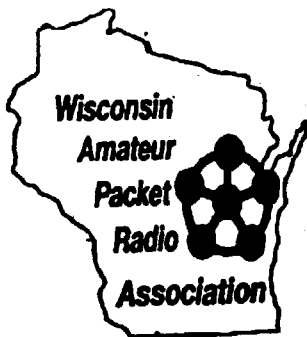
A SPECIAL NOTE TO VENDORS:

- Vendors will be admitted at 7 a.m. - OTHERS AT 8 A.M. ONLY.
- Vendors only parking will be provided for unloading.
- Plate Lunches and Beverages provided by Jefferson County 4-H

TALK IN ON THE 145.49 REPEATER

ADMISSION: \$4.00
Table Space : \$6.00

RESERVE YOUR SPACE EARLY!
SEND YOUR SASE TO: TCARC, N9PGY
413 S. Main Street, Fort Atkinson, WI 53538
920-563-8740 evenings
920-563-9551 (FAX)
tricountyarc@globaldialog.com



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association
Allen Schnepf, N9GMJ, Treasurer
Ogema, WI 54459

Andy Nemec, KB9ALN, Editor • 453 Cottage Grove Avenue • Green Bay, WI 54304 • e-mail: kb9aln@juno.com

WAPR News - March, 1999

Hello, everyone. I hope you have enjoyed the strange, wonderful weather we have seen through a lot of February. Most of us have, except those who enjoy outdoor activities requiring cold and snow. For those with antenna troubles or those who got new antennas for Christmas, it has been a welcome respite.

The late winter does not bring us much news, but I will fill you in on a few things, as well as update you on an article that was written a while back on this page.

First, I mentioned this the past couple of months and I will repeat it. Joel, N9BQM is still looking for an intermediate node site to make the hop between Rudolph and Timm's Hill. If you know of a good node site between these two locations, or know of somebody who may be able to help, please contact Joel in one of the following ways:

BBS:

N9BQM@N9BQM.EN44WK.WI.USA.NOAM

E-Mail: jpapke@badger.tds.net

"Snail Mail": 7968 Ubinger, Pittsville, WI. 54466-921

Now on to the update. Some of you may have seen that one of the past articles that appeared here was picked up nationally. Don Rotolo, N2IRZ is the packet radio editor of CQ-VHF and happened upon the "Web Pages on Packet Radio" article that appeared in the August, 1998 column here. He had been looking for someone who had done this and was willing to write about it for quite some time. So, he contacted me and Ken at the Badger State Smoke Signals to inquire about republishing this article. We agreed, and it was reprinted in the February 1999 issue of CQ-VHF. I might add that they said some complementary things about Wisconsin, WAPR, and the Badger State Smoke Signals, which was sure nice to see.

Right after it was published, a web site that I mentioned in the article fell off the face of the internet world. This left a lot of people wondering and asking questions as to where to find the client software for Windows 95/3.11. You will be pleased to know that another site for this software has been located, thanks to the assistance of Ron, N9CFN. If you are looking for the software that will allow you to use the TCP/IP stack in Windows with a TNC, look at this Web Site:

<http://www.mv.com/users/grebus/>

This is the home page of Gary Grebus, K8LT. He wrote the ETHRAX25 package that allows you to do this. In addition to the software, you will find all kinds of helpful information there on how to set it up and configure it.

In order to use it, you must first have an IP address, of course. They are free for the asking, and are based on your geographic location. All Wisconsin and U.P. of Michigan addresses are managed by our state IP coordinator, Ron Nelson, N9CFN. He does have a few regional IP coordinators helping him to manage assignment of IP numbers. If you don't know how to get an IP address, and are not sure who to go to, contact Ron at n9cfn@juno.com. You can also write him at:

Ron Nelson, N9CFN
1448 Garland St.
Green Bay, WI.
54301

If your area has a regional or Local IP address coordinator, he can refer you to your area coordinator. If you don't have a local coordinator, he can issue you an address. Of course, you should keep in mind that this is a volunteer position, and done on a time-available basis. While Ron tries to get these squared away as soon as possible, sometimes other activities take precedence. So if you experience a delay, please be patient.

Some of you might be asking "Why not make one up?" Well, believe it or not, this is a much bigger deal than you might think. All Amateur Radio IP addresses are real, legitimate addresses maintained in a central "ampr.org" database. (By the way, ampr is a contraction for Amateur Packet Radio, and the org part of the domain indicates that we are a non-commercial organization.) So if you make one up willy-nilly, you might accidentally pick one belonging to another packet radio operator, or some internet host with no connection to packet radio. This can cause routing problems and confusion amongst the computers that route packets on the internet. So, it is important to get an assigned address and keep problems out of the picture.

Now, on to one last subject, copyright and Packet Radio.

Len, N9QIP of the Wisconsin Interstate Network mentioned this in an E-Mail message I received recently. He mentions that the W.I.N. folks have been wrestling with this issue for a while and have been trying to develop a policy on this matter. Their prime concern is packet operators who

"publish" works through flood messages ("bulletins") via the packet BBS network.

The WIN folks have elected not to forward such messages. Why? They have contacted a lawyer for advice on this matter, and he says that because the packet network is a public forum, there is no legal remedy if someone copies their work or otherwise violates a claimed copyright. Aside from that, such a claim of copying or plagiarism is hard to prove due to the nature of the packet system and how one access it.

WAPR has no such policy. Not that we disagree with it, it is just that it is an issue that we have not had to deal with up until now. In the future, it may be wise for us to develop a policy concerning copyright claims of packet operators.

There is one troubling aspect of this situation that we may well be forced to deal with one way or another, however. That would be the "republishing" of copyrighted articles by well-meaning operators through flood-distribution messages. I am not aware of any policy prohibiting this by WAPR, and there really should not be a need for this. Existing laws certainly cover this. It is just plain illegal to republish, in any form, any author's work without the express permission of the author. There are exceptions, of course. Some publications give "blanket" permission, provided that credit is given to the original author, and the publication itself. An example of this is the articles from the ARRL Letter.

However, I have seen well-meaning operators transcribe newspaper and magazine articles and distribute them via flood messages on the BBS network. This is not a good practice. Though it may take time and energy to pursue to a legal conclusion, it can be done. And one can get into legal trouble if the article is republished without permission.

Unfortunately, I have had to stop forwarding some messages that were republished as flood distribution messages appearing on our local BBS. I am legally responsible for the operation of our Green Bay BBS, and do not wish to involve myself in legal complications. So, the messages were killed off as soon as I was aware of them.

Though it is possible to republish with permission, it might be wise to avoid this practice. If you feel that an article is so important that you wish to draw attention to it, you may do one of two things: Obtain written permission from the author and publication involved, or merely refer to it in a flood message. Of course, you may want to carefully word your message so that no one can misconstrue your message as an advertisement.

And that is all we have time and space for this month. Until next time, 73 from Andy.

The Confused TNC Syndrome

You may not even be aware of it, but sometimes your TNC may be a tad confused. While the causes may vary, the symptoms of a confused TNC are:

1) Frequent transmitting, almost immediately after any key is typed. 2) Odd characters appearing on your screen, or appearing in your sent text. 3) Frequent, unwanted disconnection. 4) Any odd behavior that can't be explained by configuration.

Let's look at these problems one-by-one, and see why they might happen and how to cure them.

Frequent transmitting may mean that the TNC is confused regarding the PACLEN parameter. This is the number of Bytes that are contained in one packet. The absolute maximum is 256 Bytes. When the PacLen is set too low, the TNC sends many short packets that cause the transmitter to transmit too frequently. This can be caused by incorrect configuration, or bad data in the non-volatile memory in the TNC. Non-volatile memory is memory that does not go away when you switch the TNC off. It is generally powered by a back-up battery, usually a lithium battery. Some older TNCs will use dry cells or a NiCad battery. Very old TNCs will use a NOVRAM chip, and are not battery backed.

Odd characters appearing on your screen, or your connected station's screen from you, can have at least two causes. The first is terminal program and TNC terminal parameters that don't match.

For example, your terminal program specifies the communication port parameters like data length, number of stop bits, odd or even parity, and baud rate. Most TNCs default to 8 bits, no parity, and no stop bits. Note that these are parameters used to communicate between the TNC and terminal program. Baud rates usually default to either 1200 or 9600 baud. Most modern TNCs have an autobaud routine that tells you to "Press * to Set Baud Rate" when you cold-start the TNC. The main problem seems to concern the number of data bits, parity, and stop bits. You would

troubleshoot this problem by first checking your terminal program parameters to see if they may have gotten changed by accident. If not, check to see if the TNC has changed. If it has, and you are sure human intervention is not a factor, a reset of the TNC memory may be needed.

Frequent unwanted disconnects are another matter. They may be caused by a malfunctioning transmitter (not enough or too much deviation, off frequency, etc). If you find your transmitter is functioning correctly, the next place to try is the receiver. Is the volume set correctly? How about the squelch control? Have you moved equipment around in the shack? Placing a radio on top of a power supply can cause hum to be introduced in your transmit or receive audio. Bad connections to the radio may show up when you move equipment around. If everything checks out in this regard, then your TNC may be confused and need a reset.

Another cause of this frequent disconnects can be caused by the TNC attempting to use the older version of the AX.25 protocol. Make sure your TNC is set to AX25L2V2. Version 1 is not in use these days, at least not commonly used.

Of course, any odd behavior that cannot be readily explained can be caused by "garbage" data in the non-volatile memory of the TNC.

Many times, this, and other "Confused TNC" problems can be cured by a "hard" reset. As you may know, TNCs remember their operating parameters by keeping them in a memory chip that is powered by a small "back-up battery". In most cases, they are connected to the circuit with a small shorting jumper. Simply removing the jumper, letting the TNC sit unpowered for 5 minutes, and reconnecting the battery. Of course, you will have to reenter MYCALL and all of your other parameters and connect texts. Check your TNC manual for the location of the back-up battery and the shorting jumper.

Most TNCs are set up OK with the factory defaults, with the exception of PacLen, Slot time, Digipating, and Frack. If you have any doubt about the factory defaults, see "Using the Wisconsin Network - Part 13. It is available on the WAPR Web Page at <http://netnet.net/~ke9lz>.

Troubleshooting and Prevention

Now that we may know what the problem is, how do we prevent it from happening again? First, let's look at the probable causes.

Most scrambled memory problems appearing in TNCs are caused by irregular power problems. This could be varying operating voltage, or voltage spikes cause by bad connections or line voltage transients passed through the power supply. Of course, any troubleshooting should be started by looking at your power connections. Are they solid and free of intermittents? Are any of them crimped? Many times, a bad crimped connection can look perfectly good, yet not be electrically good.

Sometimes it is beneficial to monitor your power supply voltage. A lot of modern Digital Multi-Meters have the ability to hold minimum and maximum values of a voltage under test. Sometimes, you need to monitor it for days on end before you will see a variance. If you do see any kind of variance in a regulated power supply voltage, have the power supply repaired immediately. While this may seem like a mere inconvenience, it may be a precursor to other serious problems, like an overvoltage problem that can damage your radio and TNC.

If you find no problems with your power supply (you may wish to confirm this with a substitute power supply known to be good), then you may have a transient appearing on the DC power feeding the TNC. There are three possible causes of this; one is a transient originating from an appliance switching on and off on the same AC power circuit, or perhaps irregular AC line voltage. The other is a transient being generated by other equipment powered by the same power supply. The third possibility may be static build-up on the antenna causing a transient to appear on the DC power used by the TNC.

Filtering out transients from the AC line is not too difficult. There are very reasonably priced surge protection devices that you can purchase for computers and other sensitive electronic equipment. Plugging the power supply into one of these is very nearly a must these days, especially if you live in a rural area where power outages and brown-outs are common.

Filtering out transients that may appear from other equipment operating on the same power supply is not all that hard, either. You can obtain "Overvoltage Surge Suppressors" at electronic distributors. One such device is the Philips-ECG #1V010 Metal Oxide Varistor. It is placed in parallel with the DC output of the power supply at the TNC, with the fuse inserted between the power supply and

the variator.

One more thing that can cause erratic TNC operation could be R.F getting into the TNC. The cures for this are pretty standard - RF choke the power leads feeding the TNC, use bypass capacitors, and make certain the equipment is well-grounded. The ARRL Handbook has a rather complete section on RF interference cures.

No matter how bizarre your TNC acts, there is a cure, and often it is not all that difficult to fix. However, it often takes time more than anything to fix.

And that is all we have time and space for this month. Until next time, 73 from Andy.

Andy Nemec, KB9ALN

Internet E-Mail: kb9aln@juno.com

Amateur AX 25:

KB9ALN@KB9ALN.#GRB.WI.USA.NOAM

THE TEST POINT

(continued from page 3)

DUBUQUE, IA - ARRL/VEC

Dubuque Hamfest. Contact: Carl Clark, N0KAX, 2145 Delicia Drive, Dubuque, IA 52001. (319) 557-9149.

ROCKFORD/LOVES PARK, IL

Third Saturday of every month.

Northern Illinois Volunteer Examiners (W5YI VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. 9:00 a.m. to noon. No new applicants after 11:00 a.m. Walkins welcome. Contact: Rusty Cordell, WB9QYV, 1823 Hulin St., Rockford, IL 61102-2619. (815) 968-0080. e-mail WB9QYV@aol.com

MINNESOTA TEST INFORMATION

From "The Ground Wave", Saint Paul Radio Club.

Saint Paul Radio Club (SPRC)

Contact: Ed VanCleave, W0VC, (612) 636-0108

Test Site: St. Paul Technical College

235 Marshall Ave.

St Paul, MN

TESTING: First Saturday of the month, 8:30 a.m.

Anoka Amateur Radio Club (AARC)

Contact: Craig Johnson, AA0ZZ (612) 483-3143

Test Site: Blaine City Hall

9150 Central Ave NE

Blaine, MN

TESTING: Second Saturday of the month, 9:00 a.m.

Bloomington Office of Emergency Management

(Bloomington Amateur Radio Club (BARC))

Contact: Dan Royer, KE0OR (612) 888-9756

Test Site: Fire Station No. 1

94th St. & Nicollet Avenue S.

Bloomington, MN

TESTING: Fourth Saturday of the month, 9:00 a.m.

Valley Amateur Radio Club (VARC)

Contact: Bill Martin, AI0D (612) 432-0438

Test Site: Hayes Community Center

14601 Hayes Road

Apple Valley, MN

TESTING: Second Thursday of the month 7:00 p.m.

W5YI Group

Contact: Dave Ranney, N0AXL (612) 542-2553

Test Site: Eden Prairie Library

479 Eden Prairie Drive

Eden Prairie, MN

TESTING: Third Tuesday of the month 6:30 p.m.

SE Metro Area Radio Club (SEMARC)

Contact: Dave Harrell, K0BTE (612) 459-8678

Test Site: Cottage Grove fire Station

8641 80th St., S

Cottage Grove, MN

TESTING: Third Saturday of the month, 9:00 a.m.

The times and places listed above are the usual time and place for each VE team. Occasionally, sessions are canceled or changed. It is a good idea to call ahead to confirm the test time and place.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules. Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN at the address shown on page 2.



WB9FDZ (Original Club Call)
K9ODK (Robert L. Prine Memorial Call)

Raymond J. Matlosz, N9MLZ, Secretary
450 West 2nd Street • Reedsburg, WI 53959



The February 1, 1999 meeting of the Yellow Thunder Amateur Radio Club, Inc. was called to order at 7:43 p.m. by the club vice president Bill Hommel, KA9QFJ.

Minutes and financial reports were approved.

Old Business: Status of sale of the club generator unknown. Dave Spearing, KB9CSW to report next meeting.

New Business: Briefly discussed offering classes as there were two new prospective hams/club members in attendance at this evenings meeting. Also discussed future activities such as a fox hunt at the May meeting. Swapfest in Madison April 11.

Buck Night winner was Anne Klinkner, N9PQL who graciously donated it to the Field Day Refreshment fund. Thank You Anne.

Meeting adjourned at 8:30 p.m.

Next Meeting is Tuesday March 2, 1999 at 7:30 p.m, room 14 of the Baraboo Civic Center.

Raymond J. Matlosz, N9MLZ club secretary

The following members and guests were present:

Raymond J. Matlosz N9MLZ	Reedsburg
Tom McPherson	Hillpoint
Ed McPherson	Richland Center
Maurey Gurgel	NA9TBU Reedsburg
Bill Hommel	KA9QFJ Baraboo
Arthur Kleefisch	W9WSS Baraboo
Ken Johnson	K9DZG Mazomanie
Leonard Wagner	N9XJG Baraboo
Anne Klinkner	N9PQL Sauk City
Patrick Klinkner	Sauk City
Bill Klinkner	N9KXX Sauk City

MFJ TUNERS

MFJ-989C Legal Limit Antenna Tuner

MFJ uses super heavy duty components to make the world's finest legal limit tuner

MFJ uses super heavy duty components -- roller inductor, variable capacitors, antenna switch and balun -- to build the world's most popular high power antenna tuner.

The rugged world famous MFJ-989C handles 3 KW PEP SSB amplifier input power (1500 Watts PEP SSB output power). Covers 1.8 to 30 MHz, including MARS and WARC bands.

MFJ's AirCore™ roller inductor, new gear-driven turns counter and weighted spinner knob gives you exact inductance control for absolute minimum SWR.

You can match dipoles, verticals, inverted vees, random wires, beams, mobile whips,



MFJ-989C \$359.95

shortwave -- nearly any antenna. Use coax, random wire or balanced lines.

You get everything you've ever wanted in a high power, full featured antenna tuner -- widest matching range, lighted Cross-

Needle SWR/Wattmeter, massive transmitting variable capacitors, ceramic antenna switch, built-in dummy load, TrueCurrent™ Balun, scratch-proof Lexan front panel -- all in a sleek compact cabinet (10 1/2"Wx4 1/2"Hx15D in).



MFJ AirCore™ Roller Inductor gives high-Q, low loss, high efficiency and high power handling.

MFJ's exclusive Self-Resonance Killer™ keeps damaging self-resonances away from your operating frequency.

Large, self-cleaning wiping contact gives good low-resistance connection. Solid 1/4 inch brass shaft, self-align bearings give smooth non-binding rotation.

MFJ No Matter What™ Warranty MFJ will repair or replace your MFJ-989C (at our option) no matter what for one year.

More hams use MFJ tuners than all other tuners in the world!

MFJ-986 Two knob Differential-T™



Two knob tuning (differential capacitor and AirCore™ roller inductor) makes tuning foolproof and easier than ever. Gives minimum SWR at only one setting. Handles 3 KW PEP SSB amplifier input power (1.5 KW output). Gear-driven turns counter, lighted peak/average Cross-Needle SWR/Wattmeter, antenna switch, balun. 1.8 to 30 MHz. 10 1/2"Wx4 1/2"Hx15 in. MFJ-986 \$329.95

MFJ-962D compact Tuner for Amps

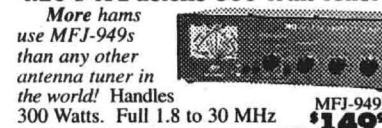


A few more dollars steps you up to a KW tuner for an amp later. Handles 1.5 KW PEP SSB amplifier input power (800W output). Ideal for Ameritron's AL-811H! AirCore™ roller inductor, gear-driven turns counter, pk/avg lighted Cross-Needle SWR/Wattmeter, antenna switch, balun, Lexan front, 1.8-30MHz. 10 1/2"Wx4 1/2"Hx10 1/2" in. MFJ-969 300W Roller Inductor Tuner \$269.95



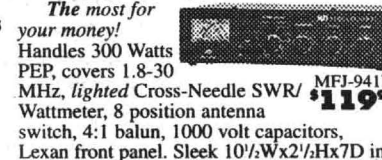
Superb AirCore™ Roller Inductor tuning. Covers 6 Meters thru 160 Meters! 300 Watts PEP SSB. Active true peak reading lighted Cross-Needle SWR Wattmeter, QRM-Free PreTune™, antenna switch, dummy load, 4:1 balun, Lexan front panel. 3 1/2"Hx10 1/2"Wx9 1/2"D inches. MFJ-969 \$189.95

MFJ-949E deluxe 300 Watt Tuner



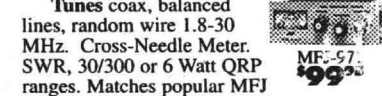
More hams use MFJ-949E than any other antenna tuner in the world! Handles 300 Watts. Full 1.8 to 30 MHz coverage, 48 position Precision48™ inductor, 1000 Volt tuning capacitors, full size peak/average lighted Cross-Needle SWR/Wattmeter, 8 position antenna switch, dummy load, QRM-Free PreTune™, scratch proof Lexan front panel. 3 1/2"Hx10 1/2"Wx7D inches. MFJ-948, \$129.95. Economy version of MFJ-949E, less dummy load, Lexan front panel.

MFJ-941E super value Tuner



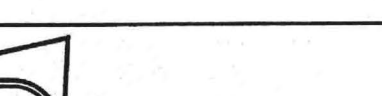
The most for your money! Handles 300 Watts PEP, covers 1.8-30 MHz, lighted Cross-Needle SWR/Wattmeter, 8 position antenna switch, 4:1 balun, 1000 volt capacitors, Lexan front panel. Sleek 10 1/2"Wx2 1/2"Hx7D in. MFJ-945E HF+6 Meter mobile Tuner \$119.95

MFJ-945E HF+6 Meter mobile Tuner



Extends your mobile antenna bandwidth so you don't have to stop, go outside and adjust your antenna. Tiny 8x2x6 in. Lighted Cross-Needle SWR/Wattmeter. Lamp and bypass switches. Covers 1.8-30 MHz and 6 Meters. 300 Watts PEP. MFJ-20, \$4.95, mobile mount.

MFJ-971 portable QRP Tuner



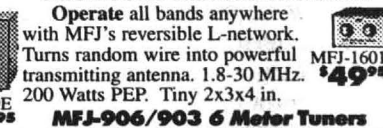
Tunes coax, balanced lines, random wire 1.8-30 MHz. Cross-Needle Meter. SWR, 30/300 or 6 Watt QRP ranges. Matches popular MFJ transceivers. Tiny 6x6 1/2"x2 1/2" inches. MFJ-971 \$99.95

MFJ-901B smallest Versa Tuner



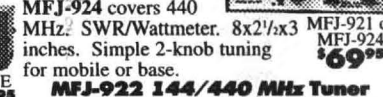
MFJ's smallest (5x2x6 in.) and most affordable wide range 200 Watt PEP Versa tuner. Covers 1.8 to 30 MHz. Great for matching solid state rigs to linear amps. MFJ-901B \$79.95

MFJ-16010 random wire Tuner



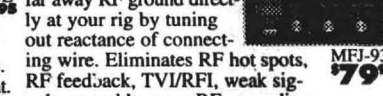
Operate all bands anywhere with MFJ's reversible L-network. Turns random wire into powerful transmitting antenna. 1.8-30 MHz. 200 Watts PEP. Tiny 2x3x4 in. MFJ-16010 \$49.95

MFJ-906/903 6 Meter Tuners



MFJ-906 has lighted Cross-Needle SWR/Wattmeter, bypass switch. Handles 100 W FM, 200W SSB. MFJ-903, \$49.95. Like MFJ-906, less SWR/Wattmeter, bypass switch.

MFJ-921/924 VHF/UHF Tuners



MFJ-921 covers 2 Meters/220 MHz. MFJ-924 covers 440 MHz. SWR/Wattmeter. 8x2 1/2"x3 inches. Simple 2-knob tuning for mobile or base. MFJ-921 or MFJ-924 \$69.95

MFJ-922 144/440 MHz Tuner



Ultra tiny 4x2 1/2"x1 1/2" inch tuner covers VHF 136-175 MHz and UHF 420-460 MHz. SWR/Wattmeter reads 60/150 Watts. MFJ-922 \$79.95

MFJ-931 artificial RF Ground



Creates artificial RF ground. Also electrically places a far away RF ground directly at your rig by tuning out reactance of connecting wire. Eliminates RF hot spots, RF feed/jack, TVI/RFI, weak signals caused by poor RF grounding. MFJ-931 \$79.95

N.F.J-934, \$169.95. Artificial ground/300 Watt Tuner/Cross-Needle SWR/Wattmeter.


Free MFJ Catalog and Nearest Dealer ... 800-647-1800

http://www.mfjenterprises.com

*1 Year No Matter What™ warranty *30 day money back guarantee (less s/h) on orders from MFJ

MFJ ENTERPRISES, INC. Box 494, Miss. State, MS 39762 (601) 323-5869; 8-4:30 CST, Mon.-Fri. FAX: (601) 323-6551; Add s/h Tech Help: (601) 323-0549

Prices and specifications subject to change. (c) 1998 MFJ Enterprises, Inc.



Darrow's
COUNTRY MARKET

1212 8TH STREET
BARABOO, WISCONSIN

Buy It • Sell It • Trade It • Fix It

SWAPFESTS



27th ANNUAL MIDWINTER SWAPFEST

WAUKESHA EXPOSITION CENTER

WAUKESHA, WISCONSIN

SATURDAY

JANUARY 8, 2000

1998 WINNERS
Jessica L. Wittenried, KB9AMX,
Steven P. Vint
Kurtis M. Kaur, N9PFF,
Mason Coe
Michael R. Placek, KB9SCH,
Oak Creek

Both sponsored by:

THE WEST ALLIS RADIO AMATEUR CLUB, INC.
P. O. BOX 1072 • MILWAUKEE, WISCONSIN 53201

HAM IT UP EVERY SPRING!

MADISON SWAPFEST

SUNDAY, APRIL 11, 1999

Middleton Conference Center
(Same place as 1998 with new name)

1313 John Q. Hammons Drive

Just west of intersection of Beltline and Greenway Blvd.
Sponsored by MARA/W9HSY

P. O. Box 8890

Madison, WI 53708-8890

Swapfest Information Line: (608) 245-8890

SOUTH MILWAUKEE AMATEUR RADIO CLUB

SWAPFEST 99

July 10, 1999

(Held every July)

American Legion Park

Shepard Avenue • Oak Creek, WI

(414) 762-3235

P. O. Box 102

Extension: Ask for Verne

South Milwaukee, WI 53172

SEWFARS SWAPFEST

Sunday, March 7, 1999

8:00 AM - 2:00 PM

Setup starts at 6:00 AM

Waukesha County Expo Center • Waukesha WI

Admission: \$4.00 advance - \$5.00 at door

Reserved tables per 4 ft: \$5.00 - \$7.00 at door

Electrical outlet: \$5.00 • Amateur license exams

Reservation deadline: February 15, 1999 - Order early!

Send with SASE, checks payable to SEWFARS, Inc. Mail to

P.O. Box 102, Delafield WI 53018

More info: (414) 835-7035

Lakeshore Hamfest

and Computer Swapfest

Manitowoc County Expo

Intersection of Hwys. 42-151 and I-43 on Cty. Hwy. R

Saturday, May 8, 1999

For more information, call:

Glenn, AA9MT: 920-684-7096

Red, N9GHE: 920-684-9097

ManCoRad Radio Club • P.O. Box 204 • Manitowoc, WI 54221-0204

TRI-COUNTY ARC PRESENTS

HAMFEST 1999

YOUR SPRING FAVORITE!

Sunday, March 21

Jefferson County Fairgrounds

tricityarc@globaldialog.com

TCARC • 711 East Street

Fort Atkinson, WI 53538

920-563-6502

Evenings

The Central Wisconsin Radio Amateurs presents the
22nd annual Swapfest and Auction

SUNDAY, JUNE 6, 1999

University Center

BIGGER AND BETTER!

Indoors • Indoor dealers unload at table • Saturday setup and security

FCC exams at 9 AM • Food all day long

BIG AUCTION STARTS AT NOON, COL. BRUCE WALTHER, W9QAH, AUCTIONEER

Information: Write or email Mary Eiden, KG9OK, CWRA Secretary, 2229 Dixon

Street, Stevens Point WI 54481.

E-mail: maeiden@g2a.net

Eau Amateur Radio Club

HAMFEST

Saturday, July 10, 1999

For Information Contact:

ECARC

P.O. Box 1867 Eau Claire, WI 54702-1867

http://www.ecarc.org

RACINE AMATEUR RADIO AND COMPUTER SHOW

Sunday, July 25, 1999

8 A.M. - 2 P.M.

SOUTH HILLS COUNTRY CLUB I-94

East Frontage Road Between Highway 20 and Highway K

OUTDOOR AND INDOOR SALES

Free Tailgating • Air Conditioned • Commercial Dealers • Forums

Tables: \$8.00 • Advance Tickets SASE and \$4.00

Send to RMC, P.O. Box 3, Racine, WI 53401

Email: w9udu@wi.net

Voice mail: (414) 552-6RMC

Web page: http://www2.wi.net/~hamradio/

Ozaukee Radio Club

21ST ANNUAL RADIO AND COMPUTER SWAPFEST

Saturday, May 1, 1999

8 a.m. to 1 p.m. • Circle B Recreation Center

Intersection of Highway 60 and County I

Exams by Badger Examiners, c/o Gary Sharbuno,

5119 W. Willow Rd., Brown Deer, WI 53222

Swapfest sponsored by the Ozaukee Radio Club

1702 Holly Lane, Grafton, WI 53024

Circus City Swapfest

Sponsored by The Yellow Thunder Amateur Radio Club

Saturday August 14, 1999 • 7 a.m. - noon

Sauk County Fairgrounds • Baraboo, WI

Vendors • Concessions
Camping • Free Parking
Tail Gate Area

\$4 - Advanced
\$5 - At Gate
8 Foot Tables - \$5

Steve Schulze, N9UDO
(608) 356-2313/356-4777

Bill Klinkner, N9KXX
(608) 643-6908/643-6453
http://www.thelox.com/~sschulze/hamfest.htm

Red Cedar Repeater Association, Inc.

AUCTION

February 23, 1999 • 7:00 p.m.

American Legion Post 53 • 634 Water Street

Eau Claire, WI

CONTACT:

Steve Hart, KA9OMC
E616 810th Ave.

715-665-2374
Knapp, WI 54749

PRODUCTS AND SERVICES

AMATEUR ELECTRONIC SUPPLY

5710 W. Good Hope Road
Milwaukee, WI 53223
Toll Free 1-800-558-0411
414-358-0333

The World's largest Ham Dealer
is located in Wisconsin

and throughout the world at
www.aesham.com

- Complete Inventories
- Quality Used Gear
- Top Trades
- Service Department
- Competitive Pricing
- Same Day Shipping

Browse our inventory
without leaving your chair

Download the Newest AES Catalog

Place an Order on-line at our

SECURE SITE



Radio Recyclers

USED HAM RADIO EQUIPMENT

Neil Lawton WK9Q

www.execpc.com/~radiorec radiorec@execpc.com

414-760-3000

Radio Estate Liquidators

over 40,000 tubes and other antique radio parts

5702 W. Good Hope Rd. Milwaukee, WI 53223

(Located next door to AES)

Buy • Sell

(715) 644-2112

FAX: (715) 644-2621

RICH'S GENERAL STORE AND SURPLUS

Route 2 • Stanley WI 54768

"YOUR DISCOUNT HAM SOURCE"

Alinco mobile HF, VHF/UHF, and HTs

Ask if any Alinco factory closeouts are currently available!

AMATEUR RADIO BOOKS, CASSETTES, AND VIDEO TAPES • GARMIN GPS

Jo, N9MEI

(800) 646-RICH

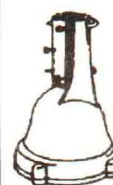
Rich, N9MEH

Craig Henderson

N8DJB

Phone (419) 352-4465

Hours: 10 - 5



Rotor Doctor

Rotor Parts and Repair



7368 S.R. 105

Pemberville, OH 43450

BATTERIES

BATTERIES FOR ALL YOUR POWER REQUIREMENTS

NICKEL CADMIUM
SEALED LEAD ACID
GEL CELLS
ALKALINE
LITHIUM



E. H. YOST & COMPANY

2211-D PARVIEW RD.

MIDDLETON, WI 53562

TELEPHONE (608) 831-3443

FAX (608) 831-1082

ehyost@mrnicd-ehyostco.com

TOWER ELECTRONICS

THE HAMS DIME STORE & WHOLESALE TO THE WORLD



ORDERS 1-800-662-3422
TECH INFO 920-435-3359
FAX LINE 920-435-2980



SCOTT KB9AMM & JILL KB9PZF E-MAIL KB9AMM@JUNO.COM

P.O. BOX 12631 GREEN BAY, WI 54307-2631

PRODUCTS FOR HAMS FROM HAMS SINCE 1978



ARRL Publications HOTLINE

Call toll free! 888-277-5289

e-mail: pubsales@arrrl.org

Check us out on the Web:

<http://www.arrrl.org/>

- Complete Publications Catalog
- Membership application and services

VCR SERVICE

North Freedom Electronics

Same day service by appointment

VCR Cleaning: \$19.95

Computers • Musical Instruments

Stereos • Auto Sound • CDs • CBs

Sorry, no TVs or stacked stereo systems

HOURS MAY VARY - CALL AHEAD

John Schmelzer
201 E. Walnut, Box 18

(608) 533-4366

North Freedom WI 53951